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| | |
|---|-----|
| I. The Physiogenetic and Psychogenic in Schizophrenia. <i>Eugen P. Bleuler</i> | 203 |
| II. Variability of Mental Ratings in Retests of Neuropsychiatric Cases. <i>Emmett L. Schott</i> | 213 |
| III. The Bells (A. E. B.) Test in Cerebrospinal Fluid. <i>Burnham S. Walker and Francis H. Sloper</i> | 223 |
| IV. The Physiopathological Significance of the Meningeal Permeability. <i>S. Katzenellenbogen</i> | 235 |
| V. Incidence of Syphilis in Insanity. <i>Frederick Proescher and Albert S. Arkush</i> | 245 |
| VI. Spinal Drainage in Alcoholic Deliria and Other Acute Alcoholic Psychoses. <i>Harry Goldsmith</i> | 255 |
| VII. Paranoia with Report of a Case. <i>Thomas Butterworth and Joseph McIver</i> | 267 |
| VIII. Some Random Notes on the History of Psychiatry in the Middle Ages. <i>Smith Ely Jelliffe</i> | 275 |
| IX. Report of Simultaneous Occurrence of Psychosis in All the Members of a Family Group. <i>Samuel Smith Cottrell and Foster Lane Vibber</i> | 287 |
| X. Proceedings of Societies: | |
| The American Psychiatric Association: Proceedings of the Eighty-Sixth Annual Meeting, Washington, D. C., May 6-9, 1930..... | 293 |
| XI. Association and Hospital Notes and News: | |
| Program for the Eighty-Seventh Annual Meeting of the American Psychiatric Association—Compliment to Dr. C. B. Burr..... | 355 |
| XII. Abstracts and Extracts: | |
| The Allinson Relation of the Cerebrospinal Fluid, IV, The Bearing of the Allinson Relation on other Findings in the Cerebrospinal Fluid. V. Kafka and K. Sonnen—Investigation of the Cerebrospinal Fluid. H. Heinemann.—Résumé of Ten Years Study in Defectology and Pedology. E. P. Punina-Griboedoff.—The Reaction Type of School-Age Children in their Social Relations. B. F. Zinov'ev.—The Pedological Card. B. F. Pohlman.—The Binet Test in Blind Children. M. P. Malygina.—A Pedological Study of Social Environment. M. M. Shevchenko.—A Collective Study of Intelligence on a Group of Pre-School and School Children of Normal and Abnormal Status. U. A. Levin.—A Psychoanalytic Analysis of Vagabond Children. S. A. Sokolskaia.—Natural Experiments in Normal and Pathological Children of Pre-School Age. V. L. Rubasheva. | 357 |
| XIII. Books Received: | |
| Psychopathological Interaction in Disease with Hypertension. By Karl Fahrenholz. (Stuttgart and Berlin: Hippocrates Verlag, G. M. B. H., 1926.)— Psychiatry and Politics. By Harold D. Lasswell. (Chicago: University of Chicago Press, 1930.)—Psychiatric Word Book. By Richard H. Hutchings, M. D. (New York: N. Y. State Hospitals Press, 1930.) | |

AMERICAN JOURNAL OF PSYCHIATRY

THE PHYSIOGENIC AND PSYCHOGENIC IN SCHIZOPHRENIA.*

By EUGEN P. BLEULER, ZURICH.

Since Jung and myself following in Freud's footsteps pointed out, that a great part of the symptomatology of schizophrenia is to be regarded as psychic reaction, and Adolf Meyer at the same time based his well-known theory of the disease on psychic causes, some of us are often inclined to overlook that these psychic mechanisms, as they are known at the present time, do not explain the whole disease. They are only possible, if there is a certain predisposition of the brain and this disposition in schizophrenia seems to be a processive disease.

According to our conception, we can distinguish in schizophrenia, primary and secondary signs. Most of the symptoms described by Kraepelin, such as autism, delusions, illusions of memory, a part of the hallucinations, negativism, stereotypies, mannerisms and most of the catatonic signs, are secondary signs. For the explanation of all these phenomena we have to utilize the mechanisms which are also true for the normal psychology, working on the basis of the primary trouble. We consider as the main primary signs, both certain disorders in affectivity and in associations, which we have described upon other occasions. The disorder in the affectivity is the tendency of the feelings to work independently of each other, instead of working together, which becomes evident, for instance, in the ambivalence, in inadequate affective reactions, simultaneous crying and laughing, and many other observations which occur very frequently in schizophrenics. The associations, on the other hand, are no longer connected by a final aim and frequently deviate

* Abstract, made by Dr. Manfred Bleuler of an address before the Massachusetts Psychiatric Society, Dec. 7, 1929, by Professor Eugen P. Bleuler.

from the direction which is given in a normal person by the topic and by the aim of the central thoughts.

The purpose of this paper is to discuss for some forms and some signs in schizophrenia, what and how much can be explained by mere psychological considerations and, on the other hand, to show for what phenomena the psychological explanations are insufficient. There are even symptoms which seem to indicate that there must be physiological lesions.

The psychic mechanism is seen most clearly in paranoid forms. A working man, for instance, would like to earn more, and to be more than he actually is, but he does not get on. Even for a healthy person it is by no means pleasant to think that he himself is to blame for his failures. Everybody first looks elsewhere for the causes of his lack of success. The workman who makes impossible demands, must necessarily come into opposition or into actual conflict with his foreman and fellow-workers. This suggests to him, that these persons grudge him promotion or have given a post to one of their friends, which should have been given to him. Such a suspicion, it is true, can arise in the mind of a healthy person; but when there are primary lesions, when the affects exercise a greater influence on the process of thought than usual, the counter-concepts are suppressed and suspicion becomes more easily conviction. Hence, delusions of persecution occur in many cases. The sick person finds direct fulfillment of his wishes in his delusions. According to the popular saying, even a healthy person believes in what he wishes; but the sick person knows it and actually *is* the founder of a religion.

Some delusions of grandeur ensue, when the thinking process has become so disintegrated or, in general, so illogical that the patient no longer notices the grossest contradictions to reality. This frequently occurs after long years of delusions of persecution. Then he is emperor, Pope, Christ, or even God himself; not only is he going to make inventions, but he actually *has* made them. Here, we can distinctly see how the psychic development of the delusions depends on the progress of the primary lesion.

Perhaps a patient will come to you and first complain of all sorts of paresthesias (neurasthenic state). After a year, possibly he may come again with the same sensations, but now, in spite of all the physician's proofs to the contrary, he draws the conclusion that

he is suffering from some grave bodily disease, possibly syphilis, although he has never been infected (hypochondriacal stage). Again, after a long interval, the patient is seen to be in an excited state, inimically disposed towards his surroundings; he knows now that he has enemies who are causing him unpleasant sensations, by all sorts of machinations; the paresthesias have become proprioceptive hallucinations. He is now in the paranoid stage and decidedly psychotic. The more seriously disturbed thinking-process has drawn quite impossible inferences from the unpleasant sensations.

In a somewhat different way, the disturbances in thinking are manifested in the case of a woman disappointed in love, who suddenly eliminates the bitter reality, and, in her hallucinations is engaged, married, and not infrequently a child is born. Such dream states, in contrast with mere hysterical (mere psychogenic) ones, may last for months at a time. In principle, therefore, they would be a purely psychogenic syndrome. Its schizophrenic basis, however, is clearly shown in several peculiarities; on the basis of them, as a rule, diagnosis can be made rapidly. (Lack of connection and sequence in the patient's stream of talk and in his behavior, etc.)

Psychic reactions on the basis of a morbid disposition, which are at once comprehensible, are the exalted or anxious *excitations to unpleasant events*, and also autism, the withdrawal from the unsatisfying real world into an imaginary one, which offers more to the patient. The mechanism is, therefore, similar to that in neuroses but nearly all of these signify a direct "flight into illness," and this is rare in schizophrenic reactions; such reactions stray from the right path and their schizophrenic coloring is possible only if a morbid predisposition is present; and in schizophrenia this predisposition is very clearly seen in disturbances in thought and in feeling. It is not his "complexes" as such which *cause* schizophrenia, but they *shape* the morbid picture. The fundamental disturbances, those of the thinking process and those of affectivity, develop quite independently of disagreeable experiences, from which not one of us is spared. Thus all the difficulties of the European War did not cause any increase in the number of cases of schizophrenia.

For us the alteration of the thinking-process, or, elementarily expressed, of the association, is of special importance, and, as a

matter of fact, nearly all the psychogenic symptoms can be derived from it. As far as we can recognize this alteration, it is a dynamic one. Thus, we also see something similar even in those cases in which the power of the train of thought is normally weakened, as in dreams and lack of attention, and in so called mind-wandering. In schizophrenia, it is the highest control which fails where it would be necessary to act, and this again must be referred to a disturbance of the connections of all the individual functions; *for this highest control (Oberleitung) is not a special function of our soul, but the outcome, the integrated summarizing of all the individual functions.*

With this dismemberment of the connections, it is comprehensible that the logical function of thinking is disturbed by affective needs, as it is clearly evident in the example of manic forms.

Although similar association disturbances may also occur under normal circumstances, the schizophrenic thinking seems to be of direct physical origin: It shows itself in no way dependent on psychic influences, but solely on the seriousness of a fundamental process. When the disturbance is particularly severe, in acute mental aberration, catatonia and dyskinesia, it is accompanied as a rule by other symptoms, which we are rightly accustomed to regard as bodily: Raised or lowered temperature, albumen in urine, metabolic disturbances, gnashing of teeth, "Flockenlesen," fainting fits or cramps, not infrequently followed by temporary paresis of the limbs or the language, pupillary disturbances, greatly increased idiomuscular reactions, vasomotor disturbances, edema, somnolence, disturbances of the chemistry of the body, especially of the liver-functions, abnormal protein content in the spinal fluid. In many cases, too, the brain-trouble is demonstrated from the psychic side by the fact, that the confusions and delirium have absolutely the character of the "exogene" as Bonhoeffer designates it. Many cases of stupor, with their general prostration of the elementary psychic functions, conception and train of thought, often point clearly to brain-pressure, and, on autopsy, tense edema of the pia or brain-swelling is found. In the various forms of such deliria, the fundamental similarity of certain symptoms or of the whole picture to other physiogenic conditions, intoxication, fever psychoses, epileptic absences, meningitis, encephalitis cannot be denied, and in all such cases, we also find in the autopsy histological alter-

ations of the brain tissue, which show some uniformity. But in all chronic cases, too, decreases in the amount of ganglion cells and certain changes in the glia, furnish a proof that we are in presence of a brain lesion, of course not in the sense that the histological finding is the direct foundation of the primary psychic symptoms; it is merely an *indicator* of the existence of brain lesions, which, on the one hand, express themselves as psychic, and on the other hand as anatomical. Chronic histological findings always correspond with the clinical chronic picture, and acute changes, with acute ones. Organic symptoms are also the hyperkinesis and akinesis, which are likewise found in various diseases of the basal ganglia.

In contrast to encephalitis, affectivity in schizophrenia is not destroyed, but is, in some way, hampered in expression. Affective impulses which are in no way psychically perceptible, can be demonstrated in the psycho-galvanic experiment, and the affects can again appear if a catatonic patient becomes senile, or if he is analyzed according to Freud's methods. Yet, we always obtain the impression that the affectivity is also primarily altered, but by no means in the sense of a simple destruction of all feelings as it was formerly believed.

In the case of hallucinations, we have already mentioned the excitatory states of the proprioceptive apparatus; but there are still other hallucinations which are to be attributed to a physiologic excitation of the nervous system; viz., the various kinds of a photopsia, the sensations of threads, the majority of animal visions, musical hallucinations. With respect to the latter category, it must be added that also purely psychogenic animal visions appear, but in every case, these are animals with sexual significance which are evolved from erotic complexes. Music is also heard in states of ecstasy which can be wholly, or in part, psychogenic and hysteriform.

Although we may register theoretically the majority of symptoms with great certitude, as physical or psychic, conditions in the clinical picture are often very complicated. There are catatonic spells of a purely physical, and others of a purely psychogenic nature, but when a certain psychogenic dulling of the consciousness is present, the spell may be brought about by something in connection with this disposition, which spell must then, naturally, have the commingled signs of both origins. Or a physiogenic spell

increases the disintegration of the association so that the complex-tendencies, which are constantly present, can now manifest themselves by means of symptoms. The cause of the spell is physical, but the psychic symptomatology reveals the hidden complexes. Thus, it is the whole disease, and most distinctly with its acute exacerbations.

A girl is disappointed in love and has a catatonic episode. It is supposed that the disappointment is the cause of the episode, but it is only *one* of the causes; perhaps the girl has formerly experienced other equally great disappointments and has overcome them without any ill results. That the present disappointment has such results arises from the fact, that a physical process was already on the way, and when we are able to look more closely, we may find that the so-called falling in love was already a symptom and not the cause of the episode. We consequently see in these cases, too, a complete recovery, and in others, at least a disappearance of delirium, catalepsy or dyskinesis, *without any improvement in the situation*. The more serious the predisposing physical change, the less easily can the psychic causes produce an episode, or, better said, can make it manifest and vice versa. Hence, the physical and psychic symptoms and shades can mingle in all sorts of circumstances.

In *hallucinations*, we see yet other kinds of co-operation of both factors. The lack of control by the dissociation of the individual functions certainly causes the tendency to hear voices; the content, however, is determined by the complexes. Thus, in all states, the voices are the expression and confirmation of the delusions, whilst in acute delirium, it is true, they often follow in their own laws. We have seen above, how the paresthesias are transformed by the disturbance to logic and the need of justifying oneself, into bodily hallucinations, as a consequence of inimical machinations, but a fairly large portion of these same bodily hallucinations are psycho-genic in later states.

In this way, the whole illness with its alternations, becomes intelligible. On the whole, schizophrenia seems to be a physical disease with a lingering *course*, which, however, can exacerbate irregularly from some reason unknown to us, into sudden episodes and then get better again. We then see the physiogenic catatonia and delirium of exogenous character. In principle, they are capable of involution, and, so to speak, all of them really do involute, but

some almost to their previous state, whilst others leave behind a more or less pronounced schizophrenic condition, the "secondary dementia" of the older school of psychiatrists. The episodes, with their changing issue, can repeat themselves, and then their psychic residues are often summarized in time into the same grave picture as, in other cases, the first episode has caused, but the same picture can develop quite imperceptibly without an acute attack. Actual chronic states seldom improve to a recovery; chronic catatonic states never.

Theoretically, reactions have to be sharply separated from the episodes, although both forms of exacerbation are in practice not always easily distinguishable from each other, and are prone to mix, but if they are really only psychogenic, they can heal to the earlier state; real deterioration is in connection with the physiogenic process. The prognosis of the psychogenic-physiogenic mixing is dependent on it, however important each of the two components may be in the picture, and then on the unfortunately incalculable capacity for involution of the physiogenic part.

Other not infrequent exacerbations are caused by the manic and the melancholic affective states, which may have quite different significances: a considerable part of these, is a symptom of a manic-depressive psychosis, which mixes with the schizophrenia. Another, belongs to schizophrenia itself, and in addition, there must be other mood-swings whose genesis is not yet exactly known. The affective states, as such, heal. The prognosis, however, becomes less favorable if the physical process exacerbates with the manic or depressive state.

The manifest disease can remain at a standstill in every phase and everything that we can perhaps bring into relation with the acute cell-modifications can involute. I believe, however, that in most cases the standstill of the brain-process permits a considerable psychic recovery, because it is less a deficiency than an intoxication, or the continuance of the process which gives the symptoms their gravity. Such standstills and involutions are often practically identical to a recovery, and many formerly pronounced sick people, are considered to be well, although in such cases the psychiatrist, as a rule, can still discover traces of the illness on closer inspection. *Improvements up to what is practically a recovery do not, therefore, contradict the diagnosis of a schizophrenia.* More for doctri-

naire than for real reasons an attempt has been made to include in schizophrenia merely incurable forms. This, however, is contrary to experience. All attempts to separate deteriorating forms from non-deteriorating ones have failed. With its symptoms, as at present known, it cannot be subdivided, although I myself expect that this will be done some day. Out of three apparently like cases, one can deteriorate in a few months; the second only after several years by a new episode; the third not at all.

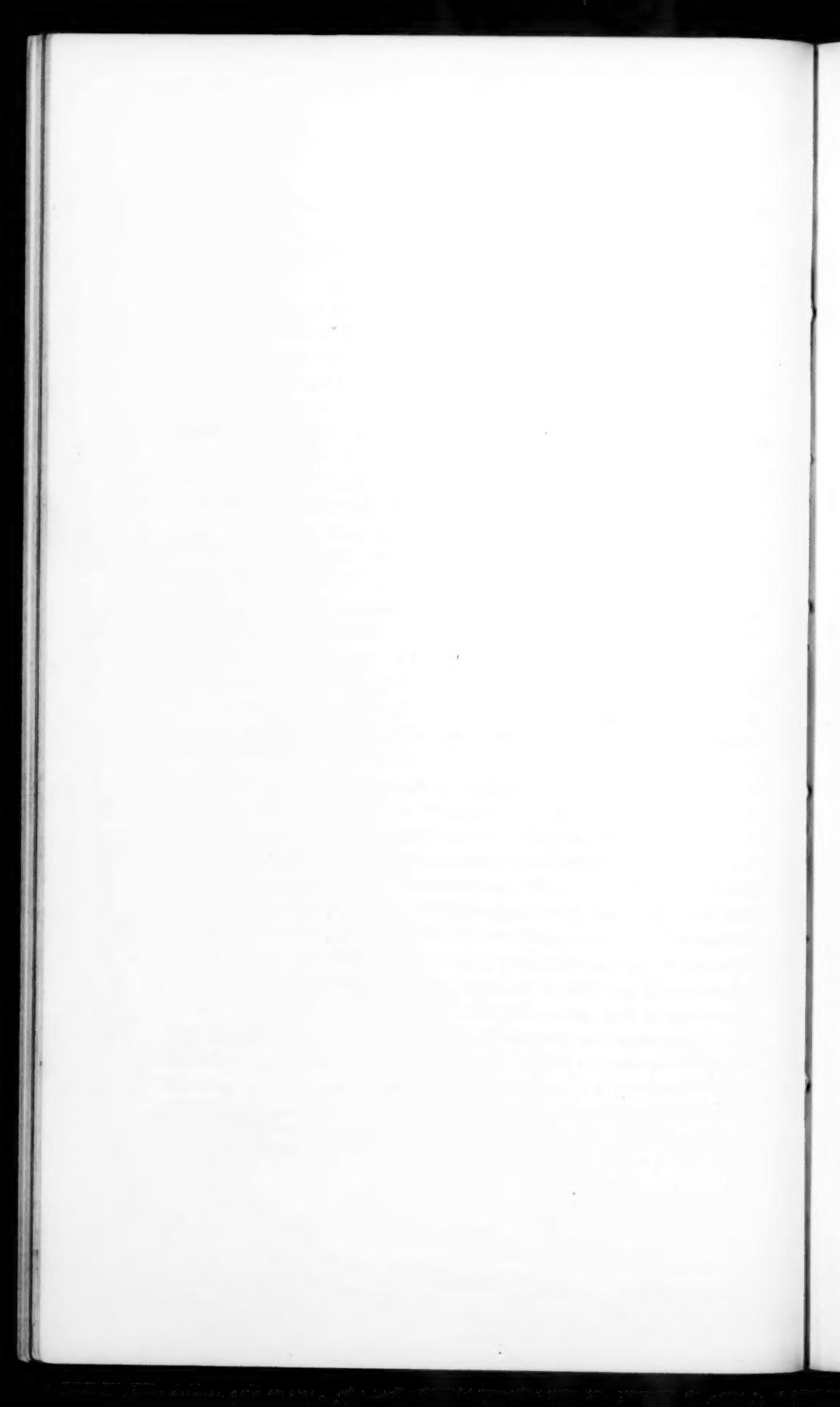
In acute stages, as already hinted, the purely psychogenic ones pass away without causing any injury. The acute physiogenic episodes are indeed capable of involution, and all of them involute to a certain degree, but in the majority of cases, leave slight, or serious chronic defects behind them. On these, some are purely psychic residues: a patient, for instance, who has a suicidal tendency motivated by schizophrenic depression, although he is no longer depressed, and could easily come to terms with life, now continues to try to commit suicide with the same persistence, but for no reason. Or, if in an acutely delirious state, he tore and soiled his clothing, and cannot refrain from doing so afterwards, nobody knows why. A girl who mixed up various languages and ideas in an incomprehensible confusion, keeps up the tendency by mere force of habit, and for other reasons; *e. g.*, because she is unconsciously afraid to take up life's task again. Other "secondary" states are more closely connected with the expired, but not quite involuted, physical process.

Although a certain number of patients become deteriorated with every treatment, and others improve even in apparently severe cases, the treatment will decide in more than one-third of schizophrenic cases whether they can become social men again or not. Hence, one hospital has many, another, only few cases of improvement. Proper treatment, however, is possible only if it is known, who is accessible to our measures and at what period. Hitherto, we have not been able to influence the physical process, however many alkaloids and gland extracts we give the patients. In acute cases, we shall, therefore, confine ourselves to expectant treatment, but we shall not trouble the patient with proceedings till the physical process takes a turn for the better; only then, shall we try to bring him back to reality. If he is left to himself, there is great danger that he will withdraw autistically into himself and lose touch with

the world. Whether, in the course of a serious illness, an exacerbation occurs, is quite independent of our treatment, but the fact, that a certain patient breaks windows, soils and tears his clothes, cries, fights, *is not determined directly by the process of the disease; it belongs to the psychogenic superstructure, and it is a reaction of his complexes to inner, and particularly to outer experiences.* It is, therefore, possible to influence the patient in his symptoms. He should be made interested in some occupation, or, in grave cases, be so trained that, without his illness being improved, he gives up his bad manners and behaves better. A great deal can be accomplished with skill and patience. With many schizophrenics, not only negativistic ones, however, it is often impossible to get the necessary touch in the ordinary way; a semi-narcosis of 8 or 12 days, with somnifene or another narcotic, may bring about a complete change.

If, however, we do not wish to have all our trouble for nothing, and make the patient rebel against our measures, the right moment must be chosen for these. We must know, above all, when an acute process has so far improved that a good result is possible. Then it may happen that a patient who seemed to be quite deteriorated and was violent and noisy, can be given back to his parents, and behaves himself like a normal person from one minute to the other. We must notice when the patients have really needs to return home. Many patients have a secret animosity towards one or another members of the family; if, at this time, they are sent home, matters will go badly. Hence, we must wait till this attitude has been changed, or dismiss them to another place. As the patients themselves are frequently unaware of such conditions, it is a great advantage for the physician to know all the signs that Freud has taught us to observe, which betray the concealed feelings of the patient with greater certainty than their words.

Ladies and gentlemen, no doubt a great many of the facts about which I have just spoken will be known to you: the more, therefore, may I hope for an understanding of those about which I was able only to hint. I hope, however, I have shown you how the exact knowledge of the connections of the symptoms can give us the proper directions for treating our patients and how theoretical science has also a practical utility in this matter.



VARIABILITY OF MENTAL RATINGS IN RETESTS OF NEUROPSYCHIATRIC CASES.*

By EMMETT L. SCHOTT, PH. D.,

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Henry Ford Hospital, Detroit, Mich.*

INTRODUCTION.

The variability of mental ratings secured by repeated use of formal psychometric examinations has been a question of much concern to psychologists since the earliest use of tests. However, since the first extensive study of the facts was made by Dr. Terman¹ and his associates in 1919, the problem of mental variability in normal children in the public schools has been quite satisfactorily worked out and his findings generally verified and accepted. At that time he reported the retests of 435 cases. In this group he found that the middle 50 per cent of the cases ranged between an increase of 5.7 points in I. Q. and a decrease of 3.3 points with a median increase of 1.7 points. Various other studies^{2, 3, 4} of normal individuals have shown similar tendencies with slight modifications. Those of us who have tested many school children know from experience that on the average the I. Q. ratings made at different times by the same children are fairly constant, but all of us recognize that there are exceptions. Some of these exceptions we have tried to explain on the basis of faults in our tests, particularly when applied to the same child at widely differing chronological age levels. Others we have assumed were due to the fact that Johnnie had been out to a late show the night before, or perhaps Mary made a better rating on the second test because her dear Auntie, in attempting to compensate for some of the family inferiorities, had read a certain article in *The American Magazine*⁵ and had tried diligently to coach the child for a week before bringing her to the clinic. But there are other exceptions which have been more puzzling, and concerning these we have heard and read some discussion from time to time. However, on the variability of abnormal

* Read at the meeting of the American Association for the Advancement of Science—Section I, Psychology, Des Moines, Iowa, December 27 and 28, 1929.

cases,^{1, 4, 5} and the assistance of repeated tests in the understanding of such cases as they come to the attention of a psychologist in a neuropsychiatric clinic, we have found very little reported. It is with such cases that we deal in this paper.

SCOPE OF THE STUDY.

In our study we have taken the case records of 100 individuals who have been tested two or more times by the same examiner and in almost identical circumstances in the Neuropsychiatric Division of the Henry Ford Hospital. The general supervision of the studies for the diagnosis and the treatment of the adult patients has been, in most instances, under the personal direction of Dr. Thos. J. Heldt, Chief of the Division. The children have been referred for various reasons from the Department of Pediatrics.

SELECTION OF CASES.

In selecting these 100 cases from our files we took in alphabetical order the first 50 adults who had been tested at least twice with the Stanford Revision of the Binet-Simon Scale and the first 50 children who likewise had been tested more than once with the Stanford Revision of the Binet-Simon Scale. Many of these individuals had been given other tests, such as the Yerkes-Bridges Point Scale and the Pintner-Paterson Short Form Performance Test, but all of them had had at least two complete examinations with the Stanford-Binet, or, in a few cases running below the three-year level on the first test, the Kuhlmann extension of the Binet Scale. The time between these two examinations varied from 1 day to 2 years and 11 months with a median of 128 days or approximately four and one-fourth months between tests. The ages of the adults at the time of the first test varied from 16 years to 58 years, with a median of 32 years. The ages of the children at the time of the first test varied from 3 years up to, but not including 16 years, with a median of 10 years. That is, we used 16 as the dividing line for the two groups and determined all adult I. Q.'s on the basis of 16 as the chronological age. In this group the factor of variation due to changing chronological age was thus eliminated. Partly because of this, and partly because each one had a definite mental abnormality, as indicated by the final diagnosis, we have concerned

ourselves somewhat more with this group of 50 adults and have used the group of 50 children only as a basis for comparison on certain points.

NEUROPSYCHIATRIC DIAGNOSIS OF CASES.

Fifteen different major diagnoses were represented in the group of adults. These diagnoses with the frequencies were as follows:

| | |
|--|--------|
| 1. Dementia paralytica, or general paresis..... | 16 |
| 2. Manic-depressive psychosis (manic phase 2; depressed phase 3)..... | 5 |
| 3. Epilepsy, grand mal..... | 4 |
| 4. Symptomatic mental depression..... | 4 |
| 5. Psychopathic personality with psychotic outbursts..... | 4 |
| 6. Mental deficiency with impulsive outbursts..... | 3 |
| 7. Post traumatic neurosis..... | 2 |
| 8. Psychoneurosis (hysterical type 1; anxiety type 1)..... | 2 |
| 9. Dementia praecox (paranoid type 1; catatonic type 1)..... | 2 |
| 10. Brain tumor, right cerebellar..... | 2 |
| 11. Chorea, Sydenham's with personality and character changes..... | 2 |
| 12. Cerebellar disease, degenerative type (dyssynergia cerebellaris progressiva) | 1 |
| 13. Cystic arachnoiditis (brain)..... | 1 |
| 14. Chronic encephalitis with character and personality changes..... | 1 |
| 15. Tetany with toxic mental state..... | 1 |
| Total | 50 |

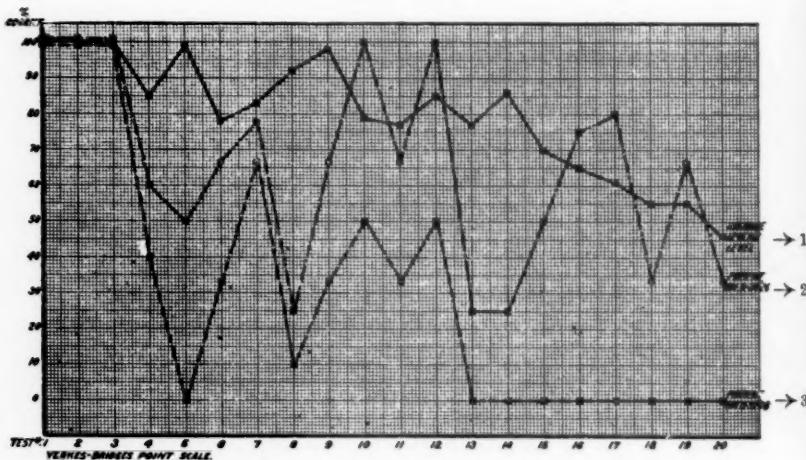
In administering the tests to these 50 cases we gave particular attention to the type and magnitude of the symptomatology as well as the particular type or phase of the disease. At the time of testing all patients were judged to be sufficiently in touch with their surroundings to be cooperative to a reliable extent—reliable in that we judged that our tests were giving us actual determinations of the variabilities which we were seeking to examine.

TYPICAL CASE SUMMARIES.

To give a clear conception of the kind of cases to which we have referred, the following have been chosen. Results of psychometric evaluations in each of these four cases are illustrated graphically by accompanying charts.* For contrast, a fifth chart is given showing the test results in the case of a normal individual.

* For details of the Yerkes-Bridges Point Scale and norms used in these charts, see Yerkes, R. M., Bridges, J. W., and Harwick, Rose S., "A Point

CASE I.—A man, age 31; a contractor by occupation; was mentally upset over several things of which the outstanding ones were family maladjustments which in turn had influenced his business unfavorably. During the first psychological test he seemed to try hard to cooperate, but responses were slow and very much delayed. There was rather a complete confusion most of the time; however, he occasionally gave a clear statement without hesitation. There seemed to be much blocking of the thought processes, and there was much perseveration. At first the patient was unable to count the 13 pennies on a cardboard in test number 3, year VI. He requested to be



1. Average 12-Year Level. 2. Patient on 9-24-'26. 3. Patient on 8-31-'26.

CHART I.—Case I. Man; Age 31. On 8-31-'26 Mental Age (Stanford-Binet) 6 Years 10 Months; I. Q. = 43. On 9-24-'26 Mental Age, (Stanford-Binet) 9 Years 9 Months, I. Q. = 61. Score on Yerkes Bridges on 8-31-'26 = 28; on 9-24-'26 = 65.

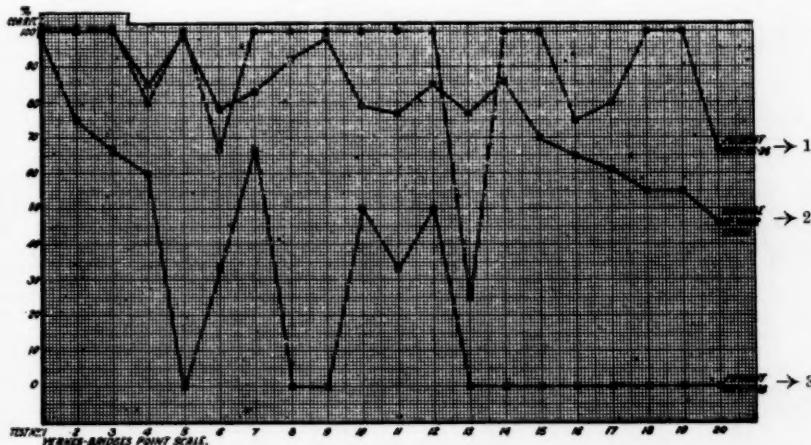
This chart shows how, while acutely depressed, there is apparently no mental activity, but as depression clears there is a return to the normal reaction mechanisms. Memory in test 8 and association in test 13 still show the most outstanding delay in return to normal. Diagnosis was symptomatic mental depression.

allowed to try again and on the second trial completed the counting, but required 130 seconds to do so. In regard to this he said, "The numbers just don't come. I see them, but they seem so far away."

Twenty-five days later, following the routine medical studies, the clearing up of foci of infection, and intensive psychiatric study with frequent psy-

Scale for Measuring Mental Ability," Warwick and York, 1915. In Chart III a somewhat arbitrary scheme is used for illustrating the average adult level on the Stanford-Binet Test. Since this test does not so readily lend itself to percentage ratings on all items as does the Yerkes-Bridges Point Scale, such a scheme is used only for comparative charting purposes.

chotherapy, the patient was tested again. At that time he cooperated with very conscientious effort, but was still somewhat slow to react. There was general improvement, the I. Q. rating having changed from 43 to 61. However, this was judged to be very far below the patient's normal level, because previous to his hospital admission he had been carrying on his own business. A retest was not secured after the patient was discharged, but apparently he continued to improve until he reached his previous normal level as the psychiatric determinants and other factors were cleared up and he returned to work. Major diagnosis: Symptomatic mental depression.



1. Patient on 6-25-'26. 2. Average 12-Year Level. 3. Patient on 6-17-'26.

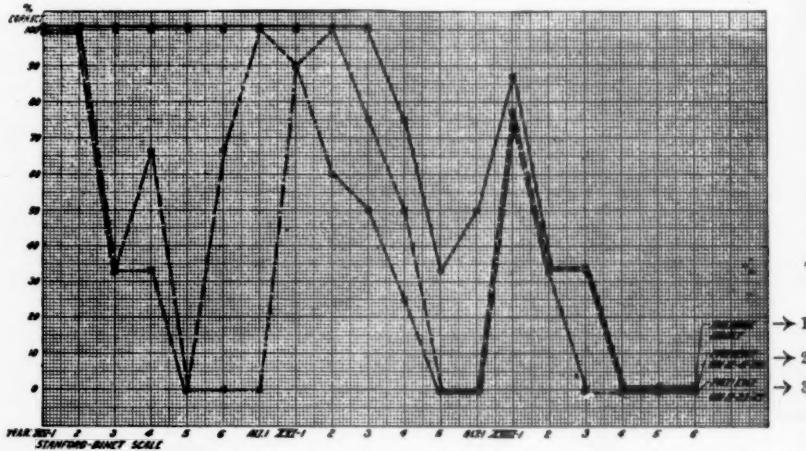
CHART II.—Case 2, Woman; Age 28. On 6-17-'26 Mental Age (Stanford-Binet) Was 6 Years 2 Months; I. Q. = 38. On 6-25-'26 Mental Age (Stanford-Binet) Was 12 Years 9 Months; I. Q. = 80. Score on Yerkes-Bridges on 6-17-'26 = 25; on 6-25-'26 = 91.

This chart shows the mental picture characteristic of imbecility (first test), but this is a regression mechanism due to mental blocking as re-examination one week later shows a much higher level. Test 13 still shows mental blocking in association, tests 4-6 and 16, different types of memory defects, and tests 17 and 20, faults in insight, judgment and reasoning. Diagnosis was epilepsy, grand mal, with psychic equivalent suggesting dual personality reaction.

CASE 2.—A woman, age 28; came to the hospital for diagnosis and treatment of convulsive seizures which had been troubling her for some fifteen years. On the day of the first mental examination she was in a somewhat confused state but tried to be cooperative and pleasant. During the test she made several references to the seizure which she had on the previous day and stated that, "things have not been *just right* in my head since then." She excused her failures by many vague, superficial and platitudinous remarks. At this time the I. Q. rating was 38. Following a week of hospitalization she was retested and much improvement of mental functioning was noted. The I. Q. rating was then 80. About three months after discharge from the hospital,

a third test showed an I. Q. of 86. Since that time two examinations have been made at yearly intervals, the first showing a decline to 81 and the last to 79. The diagnosis made on the first admission was idiopathic epilepsy.

CASE 3.—A woman, age 57; had previously been diagnosed syphilis (blood Wassermann), but had not been consistent in taking treatments over a period of five or six years and was developing many of the early symptoms of general paresis. At the time of the first mental test, the patient was overly cooperative and boastful of her powers and abilities in all lines. Emotionally she was flighty and quite vacillating in her moods. Euphoria and grandiose



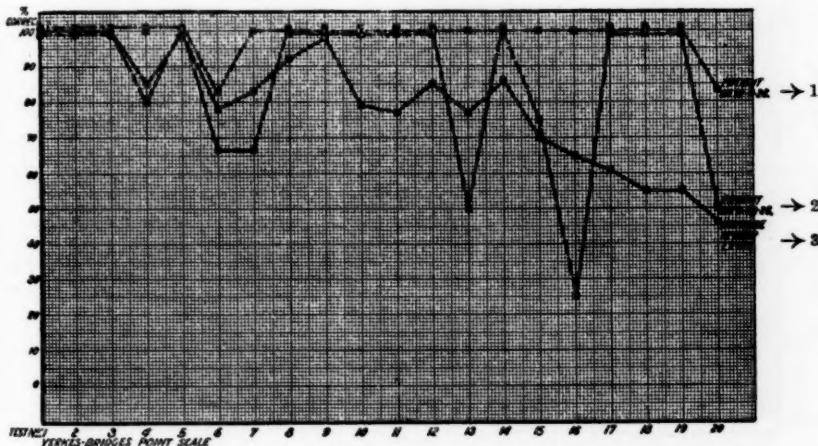
1. Average Adult. 2. Patient on 12-4-'26. 3. Patient on 11-23-'27.
CHART III—Case 3. Woman; Age 57. On 12-4-'26 Mental Age (Stanford-Binet) Was 14 Years 8 Months; I. Q. = 92; on 11-20-'27 Mental Age (Stanford-Binet) Was 12 Years 8 Months; I. Q. = 79.

This chart shows the rapid mental decline in a case of rather marked general paresis, not on regular treatment in the interval between these tests. The mental deterioration is two years in terms of mental age in a period of approximately one year. Diagnosis was dementia paralytica.

ideas were present, but were not outstanding at that time. The I. Q. rating was then 92. About twelve months later, following a period of absence from regular treatment, the patient was tested again. Her vocabulary test remained at the same level, but other tests showed considerable deterioration. There was much emotional instability. She cried in the midst of one streak of euphoria and a few minutes later was laughing boisterously in another. Among her complaints were the following: "I got lost in the alley back of my house and couldn't find the right gate to turn in at. . . . I started to get breakfast again after it had already been served. . . . When I went to visit some friends I went to the kitchen and hunted and called for my cat. . . . I think there must be something wrong, but I feel just wonderful. . . . I never felt better in my life. . . ." The I. Q. rating by this time had gone down to 79, a decline of 13 points in approximately 12 months. Diagnosis of general

paresis was made on both clinical and laboratory findings, and the patient was encouraged to go on intensive treatment through arrangements with friends.

CASE 4.—A young woman, age 22; complained of dizzy spells, weakness, and loss of memory. She was a high school graduate and up to a few months before admission to the hospital had been holding a rather responsible stenographic position. In the psychological test she cooperated rather passively, and went through the tests without any apparent emotional disturbance. There was, however, some blocking of responses and the inability to retain impres-



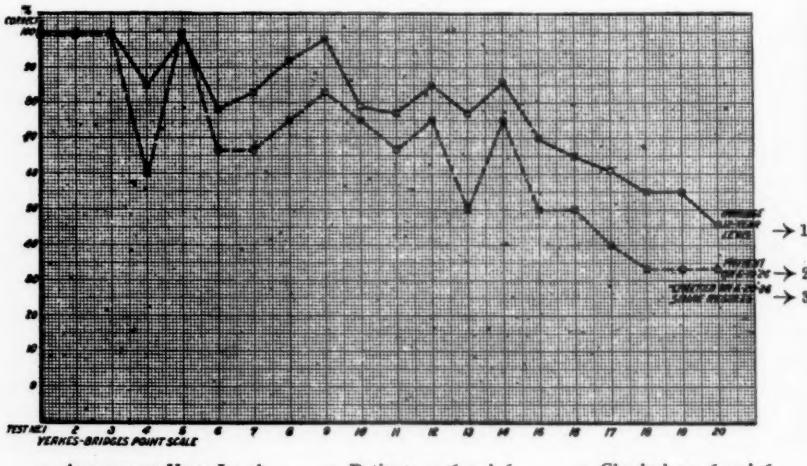
1. Patient on 10-7-'26. 2. Patient on 9-28-'26. 3. Average 12-Year Level.

CHART IV.—Case 4. Woman; Age 22. On 9-28-26 Mental Age (Stanford-Binet) Was 11 Years 7 Months; I. Q. = 73. On 10-7-26 Mental Age (Stanford-Binet) Was 13 Years 7 Months; I. Q. = 84. Score on Yerkes-Bridges on 9-28-26 = 85; on 10-7-26 = 99.

This shows how a person with high school education can show apparent mental deficiency due to hysterical reaction. It demonstrates further how the mental level can rise two years in a week's time with clearing of association and memory processes as shown in tests 4-6-13-16. Diagnosis was psychoneurosis, hysterical type.

sions seemed more apparent than real. She failed many simple tests, gaining a basal age at the nine-year level with scattering of positive credit up to and through the average adult tests. The mental age was 11 years and 7 months and the I. Q. 73. About 10 days later the patient was retested. Her remarks led us to believe that she had a partial amnesia for the previous examination—declared she had never seen the pictures, etc. . . . There was much obvious mental improvement and an I. Q. of 84 was gained. Following further study and treatment in the hospital, the patient was discharged and after a series of appointments with the psychiatric division she again returned to her normal mental condition and was able to resume industrial responsibility. The background was found to consist of a complicated series of psychiatric determinants and the diagnosis given was psychoneurosis, hysterical type.

CASE 5.—A boy; age 10 years and 11 months; brought to the hospital for general physical and mental examination. Mentally no abnormalities were noted, the child's reactions being thoroughly wholesome and normal. The mental age rating was 11 years and the I. Q. 101. A retest three days later gave the same results. This case is included for the purpose of contrasting graphically the mental picture in a normal individual with that of the mentally disturbed patient. The uniformity of performance with reference to a given age norm is outstanding as contrasted with the marked irregularity of the other cases shown in Charts I, II, III, and IV.



1. Average 12-Year Level. 2. Patient on 6-17-'26. 3. Checked on 6-20-'26, Same Results.

CHART V.—Boy; Chronological Age Was 10 Years 11 Months. On 6-17-'26 Mental Age (Stanford-Binet) Was 11 Years; I. Q. = 101. On 6-2-'26 Mental Age (Stanford-Binet) Was 11 Years; I. Q. = 101. Score on Yerkes-Bridges Both Dates = 64.

By way of contrast to the others, this chart demonstrates that in a stable individual the mental responses do not show marked degrees of change. In this particular case the curve is exactly the same for the two separate tests made three days apart. Diagnosis was normal mental state.

Returning again to the statistical study of these 50 cases, we found that the I. Q.'s ranged from 33 to 122, with a median of 79.0 on the first test. On the second test the range was from 38 to 122 with a median of 85.4. The children had very similar ranges, with medians almost identical with those in the adult group. The following tables give the figures in detail, with results of the various computations. Chart VI gives the distribution of I. Q.'s for the 100 cases on the first test and Chart VII the distribution on the second test.

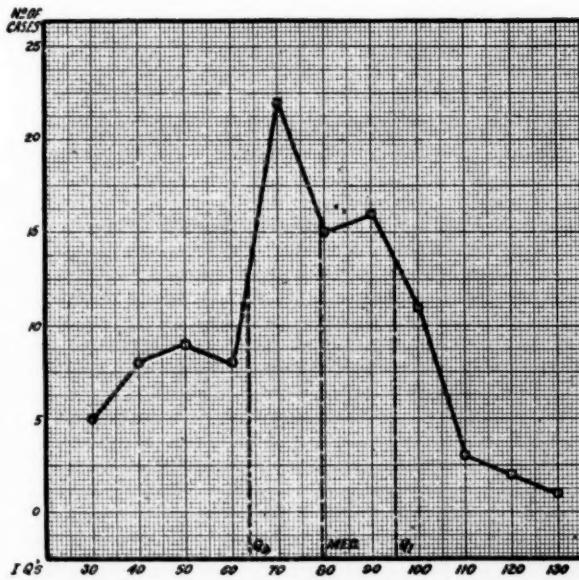


CHART VI.—This Chart Shows the Distribution of I. Q.'s Made on the First Test by the 100 Cases in This Study.

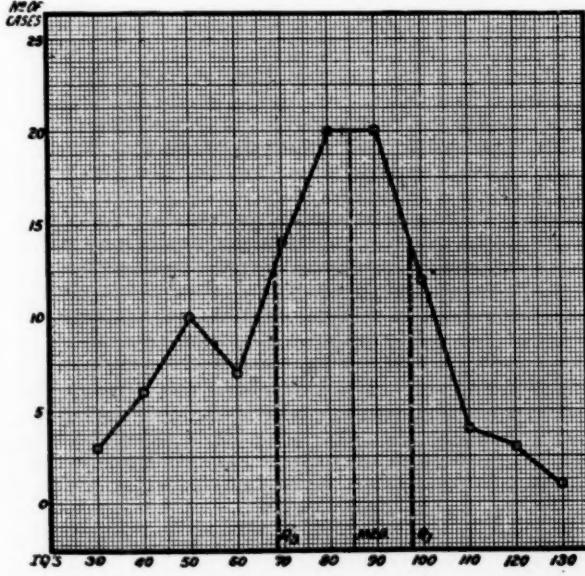


CHART VII.—This Chart Shows the Distribution of I. Q.'s Made on the Second Test by the 100 Cases in This Study.

TABLE I.
INFORMATION REGARDING THE FIFTY ADULT CASES USED IN THIS STUDY.

| Primary psychiatric diagnosis | Sex | Time between tests | C. A. | | M. A. | | I. Q. | Change in I. Q. | |
|--|-----|--------------------|-------|-------|-------|-----|------------|-----------------|----------|
| | | | 1st | ad | 1st | ad | | | |
| | | | Yr. | Mo. | Yr. | Mo. | Yr. | Mo. | |
| 1. Traumatic Neurosis | M | 7 | 50 | 1 | 50 | 1 | 9 | 7 12 2 | 60 26 16 |
| 2. Epilepsy, Grand Mal..... | F | 2 27 | 28 | 6 28 | 9 | 6 | 2 13 9 | 38 86 48 | |
| 3. Manic Depressive Psychosis..... | F | 24 | 22 | 7 22 | 8 | 15 | 4 17 1 | 96 107 11 | |
| 4. Symptomatic Mental Depression..... | M | 10 | 25 | 11 26 | 0 | 11 | 3 11 10 | 70 74 4 | |
| 5. Dementia Paralytica | M | 3' 3 | 51 | 0 51 | 3 | 15 | 4 15 10 | 96 99 3 | |
| 6. Symptomatic Mental Depression..... | M | 24 | 31 | ? 31 | ? | 6 | 10 9 9 | 43 61 18 | |
| 7. Encephalitis, Chronic | M | 8 22 | 20 | 7 21 | 3 | 17 | 1 18 6 | 107 116 9 | |
| 8. Psychoneurosis, Hyster. Type..... | F | 9 | 21 | 9 21 | 10 | 11 | 7 13 7 | 73 84 11 | |
| 9. Psychopathic Personality | M | 6 | 32 | 2 32 | 2 | 11 | 6 13 6 | 72 84 12 | |
| 10. Psychopathic Personality | F | 21 | 25 | 7 25 | 8 | 15 | 3 15 3 | 95 95 0 | |
| 11. Dementia Paralytica | M | 9 23 | 46 | 4 47 | 2 | 17 | 0 15 3 | 106 95 11 | |
| 12. Dementia Paralytica | F | 1 0 | 35 | 10 35 | 11 | 14 | 2 14 2 | 89 89 0 | |
| 13. Dementia Praecox, Cataton. Tp..... | M | 10 | 28 | ? 28 | ? | 13 | 0 13 6 | 81 84 3 | |
| 14. Epilepsy, Grand Mal..... | F | 2 24 | 17 | 2 17 | 4 | 5 | 4 8 6 | 33 53 20 | |
| 15. Dementia Paralytica | M | 4 9 | 36 | 10 37 | 2 | 14 | 10 14 2 | 93 88 5 | |
| 16. Chorea, Sydenham's | F | 2 2 25 | 17 | 11 20 | 2 | 12 | 10 15 1 | 80 94 14 | |
| 17. Dementia Paralytica | F | 11 16 | 57 | 10 58 | 10 | 14 | 8 12 8 | 92 79 9 | |
| 18. Tetany, with Toxic Mental St..... | F | 4 | 35 | 0 35 | 1 | 11 | 9 13 5 | 73 84 11 | |
| 19. Epilepsy, Grand Mal..... | M | 10 | 26 | 4 26 | 5 | 8 | 7 8 9 | 54 55 1 | |
| 20. Manic Depressive Psychosis..... | F | 3 5 | 22 | 1 22 | 5 | 9 | 2 14 10 | 57 93 36 | |
| 21. Brain Tumor, Rt. Cer..... | M | 20 | 33 | ? 33 | ? | 13 | 9 15 3 | 86 95 9 | |
| 22. Dementia Paralytica | M | 1 8 | 36 | 3 35 | 6 | 12 | 8 14 6 | 79 91 12 | |
| 23. Chorea, Sydenham's | M | 9 26 | 17 | 10 18 | 8 | 15 | 10 16 3 | 99 102 3 | |
| 24. Dementia Paralytica | M | 8 | 52 | ? 52 | ? | 15 | 5 15 3 | 96 95 1 | |
| 25. Dementia Paralytica | M | 17 | 50 | 4 50 | 5 | 14 | 1 14 5 | 88 90 2 | |
| 26. Cerebellar Disease, Degen. Tp..... | M | 7 20 | 16 | 9 17 | 4 | 9 | 10 9 11 | 61 62 1 | |
| 27. Dementia Paralytica | F | 2 10 | 13 | 58 | 7 61 | 6 | 10 5 11 10 | 65 74 9 | |
| 28. Symptomatic Mental Depression..... | M | 14 | 48 | 10 48 | 11 | 11 | 1 12 0 | 70 80 10 | |
| 29. Dementia Paralytica | M | 28 | 32 | 0 32 | 1 | 8 | 0 11 0 | 50 69 19 | |
| 30. Psychoneurosis, Anxiety Type..... | F | 1 5 25 | 18 | 10 20 | 4 | 19 | 6 19 6 | 122 122 0 | |
| 31. Dementia Paralytica | F | 18 | 43 | ? 43 | ? | 5 | 8 12 2 | 35 38 3 | |
| 32. Epilepsy, Grand Mal..... | M | 1 1 | 3 | 17 | 1 18 | 2 | 12 0 11 10 | 75 74 1 | |
| 33. Cystic Arachnoiditis (Brain)..... | M | 20 | 40 | 4 40 | 5 | 13 | 0 16 2 | 81 102 21 | |
| 34. Manic Depressive Psychosis..... | F | 1 | 38 | ? 38 | ? | 8 | 10 9 4 | 55 58 3 | |
| 35. Manic Depressive Psychosis..... | F | 1 6 24 | 36 | 6 38 | 1 | 15 | 9 15 3 | 98 95 3 | |
| 36. Mental Deficiency | M | 3 | 25 | 3 25 | 3 | 9 | 7 10 3 | 60 64 4 | |
| 37. Dementia Paralytica | M | 2 27 | 32 | 9 33 | 0 | 12 | 0 12 8 | 75 79 4 | |
| 38. Dementia Paralytica | F | 24 | 52 | 3 52 | 4 | 13 | 0 13 4 | 81 83 2 | |
| 39. Psychopathic Personality | M | 6 17 | 29 | 3 29 | 9 | 18 | 6 19 6 | 116 122 6 | |
| 40. Psychopathic Personality | M | 12 | 23 | ? 23 | ? | 18 | 6 18 6 | 116 116 0 | |
| 41. Symptomatic Mental Depression..... | M | 22 | 52 | ? 52 | ? | 13 | 4 13 8 | 83 85 2 | |
| 42. Manic Depressive Psychosis..... | F | 1 4 21 | 22 | 2 23 | 7 | 19 | 6 19 6 | 122 122 0 | |
| 43. Dementia Paralytica | M | 5 5 | 56 | ? 56 | ? | 13 | 0 13 3 | 75 83 8 | |
| 44. Dementia Paralytica | M | 4 2 | 35 | 4 35 | 8 | 14 | 5 14 10 | 90 93 3 | |
| 45. Brain Tumor, Rt. Cer..... | M | 4 | 46 | 3 46 | 3 | 8 | 6 8 6 | 53 53 0 | |
| 46. Mental Deficiency | M | 15 | 25 | ? 25 | ? | 7 | 2 7 2 | 45 45 0 | |
| 47. Dementia Praecox, Par. Type..... | M | 16 | 18 | 3 18 | 4 | 11 | 4 11 4 | 71 71 0 | |
| 48. Dementia Paralytica | M | 6 | 38 | 5 38 | 6 | 9 | 8 9 8 | 60 60 0 | |
| 49. Traumatic Neurosis | M | 1 0 20 | 21 | 2 22 | 2 | 17 | 3 17 8 | 108 110 2 | |
| 50. Mental Deficiency | M | 2 4 28 | 17 | 2 19 | 7 | 7 | 4 8 0 | 46 50 4 | |

TABLE II.
INFORMATION REGARDING THE FIFTY CHILDREN USED IN THIS STUDY.

| No. | Sex | Time between tests | C. A. | | | M. A. | | | I. Q. | | | Change in I. Q. | | | | |
|-----|-----|--------------------------|-------|-----|-----|-------|-----|-----|-------|-----|-----|--------------------|-----|-------|-----|--|
| | | | 1st | | 2d | 1st | | 2d | 1st | | 2d | 1st | | + o - | | |
| | | | Yr. | Mo. | Da. | Yr. | Mo. | Yr. | Mo. | Yr. | Mo. | Yr. | Mo. | Yr. | Mo. | |
| 6 | F | 3 | 8 | 7 | 8 | 7 | 6 | 6 | 6 | 6 | 6 | 76 | 76 | 0 | | |
| 8 | F | 2 | 7 | 6 | 7 | 7 | 5 | 2 | 5 | 8 | 6 | 69 | 75 | 6 | | |
| 1 | M | 20 | 11 | 3 | 11 | 10 | 6 | 2 | 6 | 10 | 5 | 55 | 58 | 3 | | |
| 4 | M | 17 | 14 | 6 | 15 | 1 | 11 | 1 | 12 | 2 | 77 | 80 | 3 | | | |
| 3 | M | 1 | 11 | 6 | 12 | 0 | 10 | 6 | 11 | 0 | 91 | 92 | 1 | | | |
| 8 | F | 10 | 5 | 10 | 7 | 10 | 5 | 10 | 6 | 2 | 79 | 79 | 0 | | | |
| 9 | F | 0 | 15 | 14 | 5 | 15 | 6 | 6 | 4 | 9 | 0 | 58 | 58 | 0 | | |
| 1 | F | 9 | 15 | 6 | 4 | 7 | 1 | 6 | 4 | 7 | 0 | 100 | 99 | 1 | | |
| 2 | F | 6 | 19 | 4 | 1 | 4 | 8 | 1 | 6 | 1 | 10 | 37 | 39 | 2 | | |
| 0 | M | 2 | 2 | 4 | 11 | 6 | 1 | 2 | 0 | 2 | 6 | 41 | 41 | 0 | | |
| 11 | M | 2 | 14 | 9 | 14 | 9 | 14 | 5 | 14 | 5 | 98 | 98 | 0 | | | |
| 0 | M | 29 | 4 | 6 | 4 | 8 | 4 | 0 | 4 | 6 | 89 | 96 | 7 | | | |
| 3 | M | 11 | 13 | 9 | 7 | 11 | 7 | 0 | 9 | 2 | 73 | 79 | 6 | | | |
| 0 | M | 2 | 29 | 5 | 5 | 5 | 8 | 4 | 2 | 3 | 8 | 77 | 65 | 12 | | |
| 5 | M | 25 | 10 | 7 | 11 | 5 | 5 | 9 | 9 | 10 | 4 | 92 | 91 | 1 | | |
| 4 | M | 24 | 9 | 4 | 9 | 5 | 6 | 9 | 6 | 9 | 9 | 102 | 104 | 2 | | |
| 13 | M | 27 | 7 | 5 | 8 | 4 | 6 | 10 | 6 | 6 | 8 | 92 | 80 | 12 | | |
| 18 | M | 5 | 6 | 1 | 6 | 1 | 2 | 4 | 2 | 10 | 40 | 47 | 7 | | | |
| 19. | F | 3 | 12 | 8 | 12 | 8 | 10 | 2 | 10 | 7 | 80 | 84 | 4 | | | |
| 20. | F | 8 | 15 | 0 | 15 | 3 | 11 | 6 | 13 | 1 | 76 | 86 | 10 | | | |
| 21. | F | 16 | 6 | 9 | 6 | 10 | 7 | 1 | 7 | 1 | 105 | 104 | 1 | | | |
| 22. | F | 11 | 0 | 11 | 1 | 14 | 0 | 7 | 0 | 7 | 2 | 63 | 51 | 12 | | |
| 3 | F | 1 | 28 | 11 | 3 | 11 | 5 | 10 | 9 | 11 | 3 | 96 | 98 | 2 | | |
| 1 | M | 7 | 0 | 7 | 3 | 8 | 17 | 7 | 9 | 9 | 7 | 107 | 108 | 1 | | |
| 2 | M | 3 | 4 | 10 | 9 | 12 | 0 | 8 | 2 | 9 | 6 | 76 | 79 | 3 | | |
| 1 | F | 0 | 0 | 3 | 3 | 4 | 3 | 4 | 6 | 5 | 8 | 138 | 133 | 5 | | |
| 9 | M | 5 | 11 | 15 | 9 | 16 | 11 | 7 | 4 | 7 | 10 | 46 | 49 | 3 | | |
| 0 | F | 11 | 3 | 10 | 2 | 12 | 1 | 7 | 4 | 7 | 9 | 80 | 72 | 8 | | |
| 9 | M | 0 | 9 | 5 | 10 | 6 | 11 | 6 | 10 | 8 | 2 | 117 | 118 | 1 | | |
| 0 | M | 3 | 19 | 15 | 4 | 17 | 8 | 11 | 7 | 15 | 4 | 76 | 88 | 12 | | |
| 3 | F | 38 | 9 | 6 | 8 | 7 | 4 | 2 | 6 | 2 | 38 | 34 | 4 | | | |
| 1 | M | 0 | 22 | 9 | 1 | 11 | 1 | 8 | 0 | 10 | 5 | 88 | 94 | 6 | | |
| 1 | F | 2 | 13 | 8 | 13 | 8 | 10 | 8 | 10 | 8 | 78 | 78 | 0 | | | |
| 3 | M | 13 | 15 | 5 | 16 | 4 | 8 | 4 | 9 | 7 | 54 | 60 | 6 | | | |
| 3 | M | 10 | 13 | 15 | 5 | 16 | 4 | 15 | 10 | 16 | 3 | 101 | 102 | 1 | | |
| 4 | M | 4 | 27 | 8 | 16 | 0 | 15 | 10 | 16 | 3 | 53 | 43 | 10 | | | |
| 4 | M | 0 | 6 | 6 | 1 | 8 | 1 | 3 | 2 | 3 | 6 | 46 | 47 | 1 | | |
| 2 | F | 13 | 14 | 10 | 14 | 11 | 6 | 10 | 7 | 0 | 46 | 47 | 1 | | | |
| 38 | F | 6 | 10 | 9 | 9 | 11 | 3 | 7 | 4 | 9 | 3 | 75 | 82 | 7 | | |
| 6 | F | 7 | 1 | 10 | 3 | 10 | 10 | 9 | 2 | 9 | 4 | 89 | 86 | 3 | | |
| 0 | M | 10 | 7 | 4 | 7 | 4 | 5 | 2 | 6 | 0 | 71 | 82 | 11 | | | |
| 2 | M | 19 | 12 | 11 | 13 | 1 | 10 | 9 | 12 | 0 | 83 | 92 | 9 | | | |
| 0 | M | 18 | 12 | 11 | 16 | 0 | 16 | 1 | 16 | 1 | 101 | 101 | 0 | | | |
| 3 | M | 8 | 7 | 6 | 3 | 6 | 11 | 3 | 0 | 3 | 6 | 48 | 51 | 3 | | |
| 44. | M | 1 | 1 | 6 | 9 | 4 | 10 | 4 | 9 | 4 | 10 | 5 | 100 | 101 | 1 | |
| 45. | F | 7 | 25 | 10 | 5 | 12 | 1 | 9 | 11 | 11 | 7 | 95 | 96 | 1 | | |
| 46. | F | 3 | 11 | 3 | 3 | 4 | 7 | 3 | 4 | 4 | 10 | 103 | 105 | 2 | | |
| 47. | M | 4 | 8 | 12 | 1 | 12 | 6 | 9 | 2 | 11 | 0 | 76 | 88 | 12 | | |
| 48. | F | 4 | 20 | 14 | 7 | 17 | 0 | 8 | 10 | 8 | 10 | 60 | 55 | 5 | | |
| 49. | M | 1 | 18 | 3 | 3 | 4 | 5 | 2 | 10 | 4 | 10 | 87 | 109 | 22 | | |
| 50. | M | 8 | 17 | 15 | 9 | 16 | 7 | 15 | 5 | 17 | 1 | 98 | 107 | 9 | | |

TABLE III
SUMMARY OF STATISTICAL FINDINGS.

| | 50 adults | 50 children | 100 cases |
|---|----------------|----------------|----------------|
| 1. Range of I. Q. 1st test | 33 to 122 | 37 to 138 | 33 to 138 |
| 1st test | 38 to 122 | 34 to 133 | 34 to 133 |
| 2. Median I. Q. 1st test | 79.0 | 79.16 | 79.09 |
| 1st test | 85.4 | 85.4 | 85.0 |
| 3. Average I. Q. 1st test | 77.38 | 79.0 | 78.19 |
| 1st test | 83.58 | 79.8 | 81.69 |
| 4. Range of variability..... | — 13 to + 48 | — 12 to + 22 | — 13 to + 48 |
| 5. Middle 50 per cent varied from. | .72 to 11.16 | .07 to 6.37 | .62 to 8.0 |
| 6. Median variability | 3.66 | 1.85 | 2.87 |
| 7. Average variability | 7.58 | 4.68 | 6.13 |
| 8. Correlation first and second test. | .868 | .956 | .907 |
| 9. Correlation between degree of variability and time elapsing between tests. | P. E. = ± .022 | P. E. = ± .008 | P. E. = ± .012 |
| | | | .021 |
| | | | P. E. = ± .067 |

(The correlation formula used was that described by H. F. Adams—An Easy Method of Determining the Coefficient of Correlation, Psychological Bulletin, December, 1918, Vol. 15, pp. 456 to 459.)

$$r = \frac{\sum xy - n \cdot \text{Av. } x (\text{Av. } y)}{(\sum x^2 - n \cdot (\text{Av. } x)^2)^{-\frac{1}{2}} (\sum y^2 - n \cdot (\text{Av. } y)^2)^{-\frac{1}{2}}}$$

DISCUSSIONS OF FINDINGS.

Of the 100 cases studied, 67 gained from 1 to 48 points in I. Q. from the first to the second tests; 17 lost from 1 to 13 points; and 16 remained the same. The average variability, taken without regard to sign, is 6.13.

The correlation determinations showed the reliability of the tests to be high. In the group of 100 cases a positive correlation of .907 between I. Q.'s on the first and the second tests was found. Thus we see that, although there is considerable variability from test to test, the relative positions that the individuals took in rank order were still quite consistently the same. A positive correlation of .868 was found between the first and the second tests in the group of 50 adults. In the group of 50 children the correlation between the first and the second tests was found to be a positive .956. This very closely approximates a perfect correlation.

A correlation between variability and the time between tests gave a positive .021 which is so close to its probable error as to be negligible. Thus the time between tests was not directly related to the variability in this series of cases as it was in Slocomb's report in which he stated that in Baldwin and Stecher's study the correlation was lowered as the time lengthened.

Other factors in variability which we considered were age, sex, and level of I. Q. As noted in the table the adults varied more than the children (average variability for the adults, 7.58; average variability for children, 4.68). Other than this there was no direct relation between age and variability, some of the younger adults varying as much as the older ones—the individual who varied most being a woman, age 28. Of the 50 adults studied, 33 were men and 17 were women. The average variability of the men regardless of sign was 5.9 points in I. Q.; that of the women 10.8 points. Of the 50 children studied 21 were girls and 29 were boys. The average variability of the boys, regardless of sign, was 5.6 points; that of the girls 3.5 points. For the 10 women who varied most as contrasted to the 10 men who varied most the average variability was 17.6 points for the women and 13.7 points for the men. For the 10 girls who varied most as contrasted to the 10 boys who varied most the average variability was 6.4 points for the girls and 11.6 points for the boys, just the reverse of the findings in case of the adults. There appeared to be no positive relationship between variability and the high or low level of I. Q.'s, some of the largest changes being within the middle ranges.

As a supplementary study, a brief survey was made of 10 cases with the diagnosis of general paresis. Three of these cases showed a decrease in I. Q., three of them remained the same, and the other four increased slightly. The three who decreased were on no regular treatment during the period between tests; the three who remained the same and the four who improved were under various forms of regular treatment judged by specialists to be fitting to their particular cases. Some of them were having the usual medication and others had had either the malaria or the foreign protein treatment. Of those without treatment, who deteriorated mentally, one, a woman of 57 whose case we mentioned previously, tested with a mental age of 14 years 8 months and an I. Q. of 92 on 12-4-'26. On 11-20-'27, about a year later, she rated a mental age of 12-8 and an I. Q. of 79. She thus declined two years mentally, as measured by the test, in approximately one year. A similar case of a man, age 46, when tested on 1-29-'27, showed a mental age of 17-0 and an I. Q. of 106; 10 months later the mental age had gone down to 15-3 and the I. Q. was 95. A third case of this type, a man, age 36, went down from a mental age of 14-10 to 14-2 within

four months. It is thus suggested that without treatment, rather advanced cases of paresis would tend to deteriorate mentally in a ratio of 2 to 1, the one being the time factor. However, a more intensive study of these and additional cases is necessary before drawing definite conclusions.

SUMMARY.

To summarize—this study shows that the variability of mental ratings in adult neuropsychiatric cases is much greater than the variability found in normal school children, and is considerably greater than that found in the children used in this study. Part of this difference is probably due to the fact that most of the adults had mental disturbances of psychotic degree, while the disturbances in the children were of a different type—namely, behavior problems, and various mild neurotic manifestations. Of all the cases with organic diseases, causing physiological and mental deterioration, the variability was greatest in the adults and there were likewise more adults with organic as well as functional disturbances. This was further emphasized by the brief supplementary study of the 10 cases of general paresis. Age and level of I. Q. were not found to be important factors in variability in this series of cases. In the adult group the women varied more than the men while in the group of children the boys varied more than the girls. The extent of the variability in mental ratings is of much value to the psychiatrist in determining the progression toward normality or increased abnormality. When thought of in this light retests not only aid in judging the mental level, but become a type of barometer indicating the upward or downward trend of mental functioning.

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THE BOLTZ (A. A. S.) TEST IN CEREBROSPINAL FLUID.

A CRITICAL REVIEW.*

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Since Boltz¹ announced his observation that the spinal fluids of paretics gives a characteristic color reaction with acetic anhydride and sulphuric acid, there have appeared in the literature several clinical studies based on this reaction, as well as reports dealing with its chemical basis.

The technic of the test as published is as follows: to 1 cc. of the fluid to be tested is added 0.3 cc. of acetic anhydride, drop by drop, with shaking. To this mixture is added in a similar manner, 0.8 cc. of concentrated sulphuric acid. After five minutes of standing the tube is examined against a white background; the appearance of a blue or lilac color is considered a positive reaction.

The purpose of this article is to attempt a harmonization of the findings of the chemists and of the clinicians and to define as clearly as possible the present status of the Boltz reaction as an aid in diagnosis and treatment.

I. THE CHEMICAL BASIS OF THE REACTION.

The particular combination of reagents which makes up the test was first used by Boltz as a possible means of detecting an increased

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Since this paper was written, numerous papers have appeared in the medical literature of several countries discussing the clinical value of the Boltz reaction. The bibliography given here covers only through 1927. The more recent publications have been in the main confirmatory of the results which we have obtained. Attention should be called to the article by Piotrowski (*Brit. Med. Journ.*, 2: 457-8, Sept. 7, 1929), who offers a variant chemical basis, with what appears to us and to Herbert (*ibid.*, 2: 953-4, Nov. 23, 1929), insufficient evidence. The short report by Myerson and Halloran (*Journ. Nerv. and Ment. Dis.* 68: 155-6, 1928) should also be mentioned as covering the subject effectively.

amount of cholesterol in the spinal fluid. In his report, however, he does not favor the hypothesis that cholesterol is the reacting substance, since he was unable to detect an increase in cholesterol in Boltz-positive fluids by other methods. Several of the later clinical workers have tentatively considered the test as one for cholesterol; there is no chemical evidence of any kind in favor of this belief.

There are, indeed, two very definite counts against this possibility. The first we have already indicated; none of the standard tests for cholesterol show an increase in the fluids which react positively to the Boltz test. In the second place, solutions or suspensions of pure cholesterol containing a comparable amount of water to that in cerebrospinal fluid do not give any reaction at all with the Boltz reagents. (In the absence of water a chloroform solution of cholesterol gives a color reaction with acetic anhydride and concentrated sulfuric acid—the Liebermann reaction. It requires only a small amount of water to inhibit this color development.)

In a previous communication² we indicated these objections to the cholesterol hypothesis and others who have investigated the chemical side of this question have pointed out the same discrepancies. It has seemed quite necessary to seek some other chemical explanation.

An interpretation of the Boltz reaction in terms of increased *protein* was worked out independently and nearly simultaneously by three sets of investigators in three different countries. The first to report were Blix and Backlin³ from the University of Upsala. They emphasized the objections to the cholesterol hypothesis and pointed out that the Boltz reaction is identical with the well-known Adamkiewicz reaction, except that acetic anhydride is substituted for acetic acid. They demonstrated the presence of glyoxylic acid in the acetic anhydride used, and were able to produce positive Boltz reactions equally well with glacial acetic acid or a solution of glyoxylic acid as with acetic anhydride. They conclude (in part) that "the Boltz test on cerebrospinal fluids is a protein (tryptophane-group) reaction based on the same chemical principles as the Adamkiewicz reaction for proteins."

This report was followed by those of Duncan⁴ and of the present authors.⁵ All are in agreement as to the chemical basis of

the reaction, holding that it is a test for the tryptophane group in protein and that it varies in its intensity with the amount of protein present. No one who has investigated the chemistry of the reaction has found any evidence that cholesterol is involved.

II. CLINICAL EXPERIENCE WITH THE REACTION.

In the hands of different investigators the Boltz reaction has given results of varying degrees of specificity. There are two reasons for this variation which occur to the mind at once. One is the possibility of varying glyoxylic acid content of the acetic anhydride used, the other being the lack of a definite criterion for distinguishing a positive from a negative reaction. In spite of these differences in conditions and in interpretation there is, nevertheless, a fair amount of agreement as to the nature of those cases which give strongly positive reactions.

Boltz found consistently positive reactions in the fluids of paretics, and predominantly positive reactions in cases of other forms of neurosyphilis.

*Grossman** correlated the Boltz reaction with other tests, observing that its findings in neurosyphilis coincided with the Wassermann and the other usual clinical tests. He was the first to record the observation that a solution of egg albumin gave a positive Boltz reaction.

*Harris*¹ found the test positive in 97 per cent of paretics, in 40 per cent of other forms of neurosyphilis and in 1 per cent of cases of other types of mental disorder.

*Fleming*² observed that in nine out of ten cases studied, the Boltz reaction became negative following successful malarial treatment of general paralysis.

Greenfield and *Carmichael*³ present 50 cases of various types of diseases of the nervous system. Sixteen paretics are included, all of whom gave positive Boltz reactions. One tabetic out of four and three neurosyphilitics out of four also gave positive reactions. Of other conditions, one case of cerebromacular degeneration and one "non-organic" case were positive. With this series simultaneous total protein determinations were made. The criterion for a positive test was the development of a lilac color; any other color

(pink, blue, brown, etc.) was considered negative. Taking their figures for total protein we find that of the 22 cases whose fluids developed a color described as "lilac," 18 had total protein values higher than 45 mg. per 100 cc. Of the 28 "negative" reactions, 19 had total protein values below 45 mg. per 100 cc. The scheme of these authors by means of which color rather than intensity was chosen as the criterion renders this numerical association somewhat ambiguous. It is evident, however, that a definite correlation exists between the appearance of a positive Boltz reaction and an elevated value for the protein content of the fluid.

Duncan in a series of 160 cases found the reaction to be decidedly non-specific for neurosyphilis. His criterion for a positive test was less exclusive than that of Greenfield and Carmichael. He accepted as positive any slight violet coloration. Out of his series only 6 per cent of the non-syphilitic cases were negative. All his cases of general paralysis were positive (+++). On account of the frequency of the appearance of the reaction in non-syphilitic cases he dismissed the test as valueless.

*Cady** on the contrary holds that the test is of considerable importance in diagnosis and especially as a check-up on anti-syphilitic treatment. He recommends continuation of treatment until the Boltz reaction is negative, since it is the last abnormal reaction to remain in the fluid. In this respect he prefers it to the colloidal gold reaction. In his series of cases (799 specimens of fluid) he obtains results as follows:

- In general paralysis, 94.6 per cent of cases positive.
- In tabes dorsalis, 82.7 per cent.
- In syphilis of central nervous system, 79.1 per cent.
- In non-syphilitic neurological conditions, 42.4 per cent.
- In non-syphilitic non-neurological conditions, 27.2 per cent.

In our own previous communication we reported a series of 28 cases in which we failed to obtain any definitely negative reaction (no change in color). We graded our reactions according to a series of color standards prepared by treating egg albumin solutions of known protein content with the Boltz reagents. The color developed with an egg albumin solution containing 30 mg. protein per 100 cc. was designated as +, with 60 mg. protein per 100 cc. as ++, and with 120 mg. as ++++. Of our 28 cases, 3 were

+++ and these three were untreated general paretics. Three other untreated paretics gave + and ++ reactions. One case of cerebrospinal syphilis gave a ++ reaction; one paretic after malarial treatment was ++. The other cases, consisting of treated paretics and various types of non-syphilitic mental cases gave reactions classified as + or ±. In this report the correlation between intensity of color and amount of protein is definitely shown. The mean of the protein values of the three +++ fluids is 121 mg. per 100 cc., corresponding exactly with the +++ standard (120 mg. per 100 cc.). The mean of the four ++ cases is 55 mg. per 100 cc., agreeing closely with the standard of 60 mg. Similarly the mean of the 16 fluids reacting + is 36 mg. per 100 cc., with 30 mg. as the standard. We maintain that the test can be applied with greater precision by the use of these standards than by a mere inspection of the color, although no claim is made that the method is strictly quantitative. This could hardly be expected, since the color development is dependent upon temperature, rate of addition of acid, etc., as pointed out by Blix and Backlin, and by Cady.

To sum up the reports of the clinical investigators, we find that: (1) Fluids from untreated paretics give strongly positive Boltz reactions in about 95 per cent of all cases investigated; (2) positive reactions are obtained in many other conditions, whether or not syphilis be present; (3) In neurosyphilitic cases, treatment tends usually to reduce the intensity of the reaction; and (4) in cases where protein has also been determined in the fluid, the intensity of the Boltz reaction varies with the protein content.

III. PRACTICABILITY OF THE TEST.

It is obvious from both clinical and chemical considerations that the Boltz reaction is not in any way specifically diagnostic for neurosyphilis. As a means of rapidly estimating the amount of protein in the spinal fluid, either as a diagnostic aid or as a guide in treatment, it seems to have a definite and valuable use. It is extremely doubtful that the test can ever be made really quantitative even by the use of color standards and controlled time and temperature. The color is transient, the reagent (glyoxylic acid) is unstable, and the test is apparently subject to interference from

other substances in the fluid, *e. g.*, excess of glucose. The Boltz reaction cannot be said to replace in any way the longer and more elaborate methods for the exact determination of protein in the spinal fluid, but where there is not time or equipment for such tests it may well serve as a convenient and practical approximation.

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THE PHYSIO-PATHOLOGICAL SIGNIFICANCE OF THE MENINGEAL PERMEABILITY.*

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One of the essential characteristics of the so-called "meningeal permeability" is that it is selective towards substances introduced into the general circulation. There appears, on the contrary, to be no obstacle to the passage in the opposite direction from the cerebrospinal fluid into the general circulation; for many substances which could not be detected in the cerebrospinal fluid after their introduction into the general circulation have been revealed either in blood or in the urine after their introduction into the cerebrospinal canal.¹

The term "meningeal permeability" is certainly not the appropriate one, for it is generally conceded that the regulation of the exchanges between the general circulation and the cerebrospinal fluid is carried out not only by the meninges but also, and even more so, by other cerebrospinal elements. The term "haematoencephalic barrier," suggested by L. Stern and Gautier¹ has the merit not to indicate the particular anatomical structures nor the mechanism of the function which has been inadequately designated "meningeal permeability."

STRUCTURE OF THE BARRIER.

Certain data available in the literature present strong support to the view that the choroid plexuses, ependyma, neuroglia, cerebrospinal vessels and leptomeninges are the main anatomical constituents of the "barrier."

Kafka² has observed in his experiments on animals that uranium injected into the blood accumulates mainly in the plexuses; only traces are to be found in the ependyma of the ventricles and of the central canal; and a small amount passes into the cerebrospinal

* Presented before the neuropsychiatric section of the Baltimore City Medical Society, March 6, 1930.

fluid, as has also been found in man. The examination by Goldman¹ of brains of animals who have received intravenous injections of dyes (trypan blue, methylene blue and osamine blue) have shown that the choroid plexuses were the only tissues which accumulated the dyes. No color could be detected in any other part of the nervous system. Monakow² and his co-workers, on the basis of their clinical and anatomo-histological investigations in man, point to the choroid plexuses as the essential element of the "ecto-mesodermic barrier."^{*} In Monakow's conception the products of internal secretion experience a certain elaboration by the choroid plexuses before they reach the nervous elements. Dandy and Blackfan,³ having demonstrated that practically no absorption takes place in the ventricles, and that the occlusion of the aqueduct of Sylvius is followed by hydrocephalus, draw the conclusion that the cerebro-spinal fluid is secreted by the choroid plexuses into the ventricles. In addition, Dandy⁴ has demonstrated that the occlusion of one foramen of Monro was followed by an unilateral hydrocephalus; when the choroid plexus of the corresponding occluded ventricle was removed, then not only no hydrocephalus had formed but the ventricle was collapsed.

The participation of the cerebral and spinal meninges in the permeability has been demonstrated in the following studies:

Zylberblast-Zand⁵ has observed that trypan blue injected intravenously, after the removal of the pia-mater of a certain cerebral area, accumulates in this denuded region, whereas other parts of the neuraxis are entirely free from the dye. On histological examination she has found in the meninges cells "histiocytes" absorbing the dye, cells which she also found in the pia-mater accompanying the vessels in the deep cerebral layers. The pia-mater would be considered the protector of the nervous system, and the meningeal permeability would depend upon the "histiocytes." In experiments by Cestan, Laborde and Riser⁶ the spinal meninges have been isolated from the choroid plexuses by a ligature of the spinal medulla at the level of the 6th or 7th dorsal vertebra. After the intravenous injection of urea, equal amounts of the latter have been found in the fluids obtained from above and below the ligature. Walter,⁷ confronting the findings of different investi-

* Term used by Monakow instead of "hemato-encephalic barrier."

gators and those of his own, concludes that the aqueous part and the free electrolytes of the cerebrospinal fluid are being regulated by the choroid plexuses, the leptomeninges and the whole surface of the cerebrospinal system including the vessels.

L. Stern¹⁰ has made histological studies of the choroid plexuses, ependyma, vessels, neuroglia and ganglionic cells after the introduction into the general circulation of sodium ferrocyanide and of trypan blue respectively. On the ground of her findings, Stern advocates the idea that in normal conditions the passage of crystalloids is controlled by the choroid plexuses and the ependyma mainly, while the passage of colloids is regulated chiefly by the walls of the vessels.

The data so far reviewed justify the belief that most of the anatomical structures of the cerebrospinal axis and predominantly the choroid plexuses take part in the function of the barrier.

MODE OF FUNCTION OF THE BARRIER.

The question arises, what is the mechanism of this function which results in the elaboration of the cerebrospinal fluid? In other words, how is the fluid formed? Two conceptions are debated in the literature: the conception of secretion and that of dialysis. Kafka,¹¹ without taking a definite stand in the matter, points to two factors arguing for the secretory function of the choroid plexuses: 1. The independence of "secretion" of the plexuses from an increased blood pressure. 2. "Hypersecretion" following the injection of pilocarpine, which Kafka considers to be a stimulant of glandular activity. The fact that the fluid contains elements which one also finds in the blood plasma militates against the theory of secretion, for secretion implies the elaboration of a new specific product.

There are, on the contrary, reliable evidences that the barrier functions as a dialyzing membrane. The very illuminating studies of Weed¹² show that changes in the osmotic pressure of the blood stream induced by intravenous injections by hypotonic and hypertonic salt solutions are associated respectively with an increase and a decrease of the pressure of the cerebrospinal fluid. The hypertonic solution induced absorption of the fluid into the vessels of the nervous tissue. Foley¹³ on one hand and Forbes, Fremont-Smith and Wolff¹⁴ on the other, have found that intravenous

injections of hypertonic salt solutions induced a retrograde flow of the cerebrospinal fluid from the subarachnoid space to the lateral ventricles and the absorption of the fluid by the choroid plexuses and the ependyma. Finally, evidence that the cerebrospinal fluid, among other organic fluids, is a dialyzate, was given by the basic experiments of Mestrezat.¹⁴ Having immersed into horse plasma a collodion sack filled with a salt solution of a weaker concentration than that of the plasma, he found that the obtained equilibrium resulted in an increase of the chloride content in the original salt solution. The concentration of chlorides and of other elements in the equilibrated dialyzate approached the composition of horse aqueous humor. In other series of experiments Mestrozat, having introduced an empty collodion sack in the peritoneal cavity of living dogs, rabbits and guinea-pigs, obtained a fluid in which the chloride content was higher than in the plasma, and it approached the concentration of cerebrospinal fluid and aqueous humor. The higher concentration of chlorides in the cerebrospinal fluid, aqueous humor and other natural dialyzates than in the plasma, compensates, according to Mestrezat, for the higher protein content of the plasma. This has been demonstrated also by Fremont-Smith and Dailey.¹⁵ In their comparative study of specimens of human plasma and cerebrospinal fluid, they have found a definite relationship between the content of proteins in the plasma, the concentration of chlorides in the same plasma and in the fluid of the same individual, "so that the greater the protein content of the plasma, the greater the excess of chlorides in the cerebrospinal fluid." These findings are strikingly supported by the authors' observation of a reduced chloride content, approaching that of the plasma, in those spinal fluids in which the protein content was high or near the level of the corresponding plasma protein. As to the origin of the small amount of protein and the very few cells in the spinal fluid, these elements come, according to Lange, from within the "barrier" and not from blood as Mestrezat was inclined to believe.¹⁶

THE EXCHANGES BETWEEN THE GENERAL CIRCULATION AND THE CEREBROSPINAL SYSTEM AND RÔLE OF FLUID.

The data we have brought out make it clear, that the cerebrospinal fluid is elaborated by a set of different elements which, as

a functional entity, is designated by the term hæmatoencephalic or ecto-mesodermic barrier in Monakow's terminology. The rôle of the fluid would be, according to Dandy,¹⁶ a mechanical one, protecting the cerebrospinal axis against shocks. Dandy sees a proof for this protective function in "the existence of great water beds around the most important parts of the nervous system—the medulla, spinal cord, pons and mid brain." Another opinion arising from experimental investigations is that the cerebrospinal fluid is the intermediary body through which the exchanges between the general circulation and the nervous system take place. This view has been particularly emphasized by L. Stern on the ground of the following observations:

1. Only those substances that were introduced into the general circulation and which could be detected in the cerebrospinal fluid have also been found in the nervous tissue. 2. It never occurred that any of the numerous substances used in the experiments were revealed in the nervous tissue without the penetration of these substances into the cerebrospinal fluid. The latter would thus be not only a mechanical protector of the system but also a constant chemical milieu whose alteration would have an ill effect on the nervous elements. And since the fluid is formed by what one calls barrier, alterations of the latter will alter the composition of the fluid. This conception of the rôle of the cerebrospinal fluid finds a valuable argument in the fact that the cerebral vessels are submerged by the fluid separating them from the brain tissue.

The other opinion is that there is also a direct exchange between the nervous elements and the blood stream. Walter¹⁷ contending this opinion, brings to the fore the following arguments: (a) The distribution of the capillaries in the nervous system is not an equal one, but is in relation to the importance of the function of its different components: for example, they are more numerous in the gray substance. (b) The absence of fat and the small amount of proteins in the fluid is in contrast to the high content of both these elements in the nervous tissues.

PATHOLOGY OF THE BARRIER.

The pathological significance of the barrier is to be found in the discussion of the pathogenesis, diagnosis and treatment of certain nervous and mental diseases. From the teleological standpoint one

may say that, thanks to the essentially selective function of the barrier, the nervous elements are protected against the intrusion into the cerebrospinal fluid, of substances whose contact with the nervous tissue may be harmful. On the other hand, the barrier would favor the passage from the blood stream into the fluid of those elements whose intimate contact with the nervous system is necessary for the normal function of the latter. Any functional disorder resulting either in increase of or in decrease of the permeability of the barrier would therefore have an ill effect on the nervous system. It is in the light of these ideas that the barrier has become the subject of studies in nervous and mental diseases. Monakow⁴ and his co-workers on the ground of their clinical and anatomo-histological investigations of more than 60 cases, including schizophrenia and other mental diseases, suggest the hypothesis that there should be a relation of cause and effect between the alteration of the ecto-mesodermic barrier and mental disorders.

Clinically the barrier has been studied in the last few years by functional tests and mainly with bromide in nervous and mental diseases. Briefly summarized, the results obtained by Walter,⁵ Hauptmann,⁶ Prussak and Prussak,⁷ Strecker,⁸ Malamud, Fuchs and Malamud⁹ among others, may be presented as follows: There is an increase of permeability (low quotient of blood bromide to fluid bromide) in general paresis, tabes, syphilitic meningitis, and arteriosclerotic dementia; a low permeability (high quotient) in chronic epidemic encephalitis and in schizophrenia. Buchler¹⁰ brings a dissonance into these corroborating results, stating that if one takes into account the age of the patients and the vascular changes, one finds that there are no characteristic permeability changes in any recognized disease. Our own studies of the bromide, chloride and calcium quotients, studies which are carried out with the collaboration of Dr. Goldsmith's department at the Baltimore City Hospital, will be reported later.

From the diagnostic standpoint, the "meningeal permeability" should also be considered in the interpretation of certain changes in the composition of the fluid, changes which are not due to the administration of certain substances. We refer, for illustration, to a high rate of glucose and to the appearance of antibodies which give a positive Wassermann reaction. Hyperglycorachia was con-

sidered in 1917 by Economo, and in 1921 by Netter and Dopter, among others,²³ as a symptom of the utmost importance in epidemic encephalitis. Simultaneous studies of glycemia and glycorachia have however shown subsequently that in a great many cases hyperglycorachia is proportionate to the hyperglycemia. In other cases the high content of glucose in the fluid coinciding with a normal glycæmia, appears to depend upon an increase of the permeability to glucose. But such an increase has been found, among others in our own studies,²⁴ not only in encephalitis, but also in various pathological conditions, with no evidence of meningeal congestion, which, as one knows, increases the permeability.

With regard to the Wassermann reaction in the fluid, we have discussed, on another occasion,²⁵ the origin of the antibodies. The question now arises, are we able, in the light of our knowledge of the function of the barrier, to formulate an idea, as to the origin of the antibodies in a given case. Do they come from the blood or are they formed within the cerebrospinal canal? The importance of such a discrimination is obvious: Assuming the cerebrospinal origin we also must admit the luetic involvement of the cerebrospinal system. At the present time we must satisfy ourselves with presumption only based on the following data: 1. One knows that the permeability for electrolytes may be increased without being associated with an increased permeability to colloids (arteriosclerosis and manic-depressive cases). 2. High permeability for colloids is usually accompanied by an increased permeability for electrolytes.²⁶ On the ground of these data one may assume that colloids, comprising antibodies, of the fluid are of endogenous, *i. e.*, intraspinal origin, when they are not accompanied by a distinct increase of the permeability for electrolytes.²⁷

Finally, the problem of the barrier permeability presents an interest from the standpoint of treatment of organic nervous diseases. In this respect two therapeutic methods should be considered: 1. Intraspinal treatment. 2. Treatment with procedures aiming to increase the barrier permeability.

The intrarachial way has been largely used in the last few years for the administration of various drugs. Dujardin²⁸ has used this way for the administration of arsenobenzene and horse serum in those patients in whom the Wassermann reaction was negative in

the fluid and positive in the blood, aiming to facilitate the passage of antibodies from the blood into the fluid. In epidemic-encephalitis autoserum, serum of convalescents, specific vaccin and casein have been used for endolumbar injections.²⁷ Tabetic pains, spasms of the inferior limbs, and delirium tremens have been benefited from intraspinal injections of sodium bromide.²⁸ The theoretical considerations leading to endolumbar treatment in these various conditions are quite obvious, in the light of what we summarized in this review. These are to insure the contact of the nervous tissue with the drugs used, and with the antibodies from the blood. Their passage into the cerebrospinal canal is expected to increase on account of meningeal congestion, which any foreign substance introduced into the spinal canal, usually is liable to induce.²⁹

The use of pyretotherapy to increase the barrier permeability for drugs introduced into the general circulation is suggested by the following data: Experimental investigations have shown a distinct increase of the permeability in animals infected with various bacteria.³⁰ An increase of the permeability has been found to be induced by fever in schizophrenic cases.³¹ One also finds that the meningeal permeability in paresis, being usually above the normal, experiences a further rise during malarial treatment.^{30, 31} These observations tend to raise the question as to whether and to what extent the functional changes of the barrier are responsible for the beneficial therapeutic results which one generally obtains with malaria therapy. The fact that other kinds of pyretotherapy have also been found to give satisfactory results³² would seem to favor the view of the participation of the barrier, since the common trait of fever inducing procedures is to lessen the resistance of the barrier. But I do not think that we are ready, at the present state of our knowledge, to take a definite stand in the matter, except to recognize that the "hypothetical barrier" stimulates further investigations.

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INCIDENCE OF SYPHILIS IN INSANITY.*

By FREDERICK PROESCHER, M. D., AND
ALBERT S. ARKUSH, A. B.

Since the discovery of the Wassermann reaction about 20 years ago it has enjoyed a most extensive use in serum diagnosis. But while the clinical value of this application has been great, collections of data therefrom have been rather scanty and unilluminating. Statistics from hospitals and other institutions are unsatisfactory in general because consecutive examinations of all cases are not made. It follows also that where statistics are restricted to special classes or patients the status of society as a whole remains obscure. Even patients of hospitals and other medically attended cases undoubtedly present a higher percentage of syphilitics than ordinarily determined, for only frank lesions or suspicion of a venereal etiology prompt the medical man to order a serological investigation. This is especially true of spinal fluid examination.

If those cases or patients having syphilis as a secondary factor to their admission or commitment be subtracted from the total, some idea of the incidence in population at large can be obtained. The ideal method would be, of course, to perform a serological test upon each citizen. This is so far impossible, due largely to popular prejudice. Our best statistics of the sort come from the medical department of the United States Army and cover especially the personnel during the recent war. Even such statistics have the restrictions of age and sex.

It must be obvious that statistical results can be of value only when they cover great numbers of cases. It seems almost futile to publish the results of examinations on between 2000 and 3000 cases. Such publications may induce others of similar nature, however, and comparison of all may give the result desired. Most of our statistics from insane hospitals come from eastern institutions. It is especially desired that others will cooperate in this effort.

Concerning more especially state institutions for the insane, it would seem not only more efficient from the standpoint of therapy

* Based on 2236 consecutively admitted cases. From the pathological laboratory, Agnew State Hospital, Agnew, California.

and economics, but more desirable for scientific study that these hospitals handle only select groups or psychoses. Thus one hospital alone may care only for patients with diseases of the central nervous system, another has dementia precox patients, etc.

All cases admitted to the Agnew State Hospital are given a Wassermann and Kahn test of the blood. Spinal fluid examinations are made only where involvement of the central nervous system is suspected. Where a patient has been admitted more than once, only the results of the first examinations are considered in this compilation. Paretics comprise by far the bulk of syphilitics. They die rapidly, however, and statistics not based upon commitment diagnoses are therefore liable to be misleading. Only those sera that gave a strong reaction (3 plus or 4 plus) are included here as positive. All doubtful cases are re-examined several times if necessary. The Kahn test has been used as an adjunct since January, 1926. Other records date from June, 1922.

Histories in our patients are almost valueless—at least for these purposes. The anamnesis rarely ever furnishes a clear picture of syphilitic background. Differentiation of cerebro-spinal syphilis clinically is extremely rare and in this institution is almost entirely by laboratory methods. For this reason our figures for paresis must be considered as somewhat unreliable to the extent that they contain a small proportion of patients with cerebro-spinal syphilis.

Although our first age grouping includes the period up to 30 years, juvenile patients are rare, the bulk in this group being over 25 years of age. There is but one juvenile paretic.

Attention should be called to the fact that "incidence" is used here in the sense of "commitment." Many patients doubtless have had their diseases for years before entry into the hospital.

STATISTICAL.

An age-incidence table giving the distribution of patients in age increments for the individual psychoses is shown in Table I. This is for both male and female patients. The first number appearing in each space stands for the number of patients in age and psychosis indicated by the headings. The second number represents those having or having had syphilis.

The number of syphilitic patients is determined from those that give either positive Wassermann or positive Kahn reactions on either blood or spinal fluid.

TABLE I.
MALE AND FEMALE.

AGE.

| | 0-30 | 31-40 | 41-50 | 51-60 | 61-70 | Over 70 | Total * |
|------------------------|--------|---------|---------|--------|--------|---------|----------|
| Psychosis | | | | | | | |
| Dementia precox... | 272-7 | 207-5 | 128-4 | 65-1 | 22-0 | 4-1 | 717-18 |
| General paralysis... | 14-14 | 100-100 | 97-97 | 58-58 | 14-14 | 3-3 | 292-292 |
| Manic depressive... | 83-5 | 102-3 | 93-3 | 53-1 | 37-1 | 6-0 | 385-13 |
| Senile dementia.... | 0-0 | 1-0 | 0-0 | 5-0 | 42-0 | 69-2 | 118-2 |
| Arteriosclerosis | 1-0 | 3-0 | 9-1 | 20-0 | 45-2 | 36-0 | 114-3 |
| Paranoid types..... | 1-0 | 1-0 | 4-0 | 10-0 | 4-0 | 0-0 | 20-0 |
| Alcoholism | 17-1 | 40-3 | 55-5 | 16-2 | 8-3 | 1-0 | 139-14 |
| Narcotism | 14-1 | 25-1 | 7-0 | 12-1 | 1-0 | 0-0 | 59-3 |
| Involution psychosis. | 3-0 | 7-1 | 34-0 | 56-4 | 24-2 | 3-0 | 57-8 |
| Mental defective.... | 39-3 | 18-1 | 10-1 | 4-0 | 1-0 | 0-0 | 74-5 |
| Toxic psychoses.... | 4-0 | 8-2 | 9-0 | 7-1 | 0-0 | 1-0 | 29-3 |
| Epilepsy | 24-0 | 15-0 | 8-1 | 3-0 | 0-0 | 0-0 | 50-1 |
| Constitutional inferi- | | | | | | | |
| ority | 29-0 | 13-0 | 1-0 | 4-0 | 0-0 | 0-0 | 48-0 |
| Psychoneuroses | 16-0 | 7-0 | 7-1 | 5-0 | 6-0 | 0-0 | 41-1 |
| Unclassified | 11-0 | 19-0 | 14-0 | 11-1 | 6-0 | 1-0 | 66-1 |
| Not insane..... | 4-1 | 2-0 | 2-0 | 2-0 | 2-0 | 0-0 | 13-1 |
| Various † | 4-2 | 8-0 | 9-2 | 4-1 | 6-2 | 0-0 | 31-7 |
| Total | 536-34 | 576-116 | 487-115 | 335-70 | 218-23 | 124-6 | 2326-372 |
| Total omitting | | | | | | | |
| paresis | 522-20 | 476-16 | 390-18 | 277-12 | 204-0 | 121-3 | 2034-80 |

* Apparent discrepancies in this column are due to inclusion of patients of unknown age.

† Under this title, we include patients with diagnosis of Huntington's chorea, tabes dorsalis (1 case), cerebro-spinal syphilis (1 case), not diagnosed (14 cases—3 syphilitic), Paralysis agitans, delirium tremens, organic brain disease, depressed, anxiety, myxedema.

Table II differs from Table I only in being for male patients exclusively.

TABLE II.

| Psychosis | MALE. | | | | | | Total |
|----------------------------------|--------|--------|--------|--------|--------|---------|----------|
| | 0-30 | 31-40 | 41-50 | 51-60 | 61-70 | Over 70 | |
| Dementia precox | 179-5 | 100-3 | 63-4 | 36-1 | 14-0 | 3-1 | 407-14 |
| General paralysis | 11-11 | 78-78 | 84-84 | 48-48 | 14-14 | 2-2 | 241-241 |
| Manic depressive | 33-3 | 34-2 | 50-1 | 23-1 | 18-0 | 3-0 | 166-8 |
| Senile dementia | 0-0 | 0-0 | 0-0 | 1-0 | 16-0 | 30-1 | 47-1 |
| Arteriosclerosis | 0-0 | 2-0 | 6-1 | 15-0 | 33-2 | 27-0 | 83-3 |
| Paranoid types | 1-0 | 1-0 | 1-0 | 2-0 | 1-0 | 0-0 | 6-0 |
| Alcoholism | 14-0 | 30-3 | 43-3 | 12-1 | 7-3 | 1-0 | 109-10 |
| Narcotism | 9-1 | 18-1 | 6-0 | 7-1 | 1-0 | 0-0 | 41-3 |
| Involution psychosis ... | 2-0 | 1-1 | 7-0 | 22-2 | 14-2 | 3-0 | 49-5 |
| Mental defective | 21-3 | 8-0 | 5-0 | 1-0 | 1-0 | 0-0 | 36-3 |
| Toxic psychoses | 0-0 | 5-0 | 2-0 | 2-0 | 0-0 | 1-0 | 10-0 |
| Epilepsy | 15-0 | 7-0 | 5-1 | 1-0 | 0-0 | 0-0 | 28-1 |
| Constitutional inferiority | 16-0 | 4-0 | 1-0 | 2-0 | 0-0 | 0-0 | 24-0 |
| Psychoneuroses | 14-0 | 4-0 | 6-0 | 4-0 | 4-0 | 0-0 | 32-1 |
| Unclassified | 6-0 | 9-0 | 6-0 | 7-1 | 4-0 | 1-0 | 35-1 |
| Not insane | 3-1 | 1-0 | 0-0 | 1-0 | 1-0 | 0-0 | 6-1 |
| Various | 2-1 | 3-0 | 3-2 | 4-1 | 3-2 | 0-0 | 15-6 |
| Total | 326-25 | 305-88 | 289-97 | 188-56 | 132-23 | 71-4 | 1337-298 |
| Total omitting paresis | 315-14 | 227-10 | 205-13 | 140-7 | 118-9 | 69-2 | 1096-57 |

Table III corresponds to Table II and is limited to females.

TABLE III.

FEMALE.

AGE.

| | 0-30 | 31-40 | 41-50 | 51-60 | 61-70 | Over 70 | Total |
|----------------------------|-------|--------|--------|--------|-------|------------|--------|
| Psychosis | | | | | | | |
| Dementia precox | 93-2 | 107-2 | 65-0 | 29-0 | 8-0 | 1-0 | 310-4 |
| General paralysis | 3-3 | 22-22 | 13-13 | 10-10 | 0-0 | 1-1 | 51-51 |
| Manic depressive | 50-2 | 68-1 | 43-2 | 30-0 | 19-0 | 3-0 | 219-5 |
| Senile dementia | 0-0 | 1-0 | 0-0 | 4-0 | 26-0 | 39-1 | 71-1 |
| Arteriosclerosis | 1-0 | 1-0 | 3-0 | 5-0 | 12-0 | 9-0 | 31-0 |
| Paranoid types | 0-0 | 0-0 | 3-0 | 8-0 | 3-0 | 0-0 | 14-0 |
| Alcoholism | 3-1 | 10-0 | 12-2 | 4-1 | 1-0 | 0-0 | 30-4 |
| Narcotism | 5-0 | 7-0 | 1-0 | 5-0 | 0-0 | 0-0 | 18-0 |
| Involution psychoses | 1-0 | 6-0 | 27-0 | 34-2 | 10-0 | 0-0 | 81-3 |
| Mental defective | 18-0 | 10-1 | 5-1 | 3-0 | 0-0 | 0-0 | 38-2 |
| Toxic psychoses | 4-0 | 3-2 | 7-0 | 5-1 | 0-0 | 0-0 | 19-3 |
| Epilepsy | 9-0 | 8-0 | 3-0 | 2-0 | 0-0 | 0-0 | 22-0 |
| Constitutional inferiority | 13-0 | 9-0 | 0-0 | 2-0 | 0-0 | 0-0 | 24-0 |
| Psychoneuroses | 2-0 | 3-0 | 1-0 | 1-0 | 2-0 | 0-0 | 9-0 |
| Unclassified | 5-0 | 10-0 | 8-0 | 4-0 | 2-0 | 0-0 | 31-0 |
| Not insane | 1-0 | 1-0 | 2-0 | 1-0 | 1-0 | 0-0 | 7-0 |
| Various | 0-0 | 1-0 | 2-0 | 0-0 | 1-0 | 2-0 | 6-0 |
| Total | 210-9 | 271-28 | 198-18 | 147-14 | 86-0 | 53-2 | 989-74 |
| Total omitting paresis | 207-6 | 249-6 | 185-5 | 137-4 | 86-0 | 52-1 | 938-23 |

Outstanding results from Tables I, II, and III show:

| | No. | Per cent |
|--|------|----------|
| Admissions, men and women | 2326 | 100 |
| Admissions, men | 1337 | 57.5 |
| Admissions, women | 989 | 42.5 |
| Syphilitics, men and women | 372 | 16.0 |
| Syphilitics, men | 298 | 22.3 * |
| Syphilitics, women | 74 | 7.5 † |
| Syphilitics, omitting paresis, men and women | 80 | 3.9 |
| Syphilitics, omitting paresis, men | 57 | 5.2 * |
| Syphilitics, omitting paresis, women | 23 | 2.5 † |
| Per cent of syphilitics with paresis, men and women | | 78.5 |
| Per cent of syphilitics with paresis, men | | 80.9 * |
| Per cent of syphilitics with paresis, women | | 69.0 † |
| Ratio per cent men syphilitics : per cent women syphilitics. | 3:1 | |
| Same, omitting paresis | 2:1 | |
| Ratio per cent paretics : per cent women paretics | 7:2 | |

* Based on figures for men only.

† Based on figures for women only.

We have also the following:

Of the 241 male paretics 2 spinal fluid tests and 7.8 per cent of the blood Wassermann reactions were negative. For the 51 women paretics the figures are 0 and 21.5 per cent respectively.

Ages 31-50 include 46 per cent of our patients, 62 per cent of our syphilitic cases, and 67.5 per cent of our paretics.

In a series of 502 men patients, we have percentage allotments to the several occupations as follows: Professions, 7.6; crafts, 40; commerce, 17.5; labor, 32.5; none, 2.6; not stated, 1.4.

In a series of 253 women patients the occupations receive the following percentages: professions, 8.4; crafts, 11.2; commerce, 4; none, 3.1; domestic, 8.8; housewife, 59.7; not stated, 4.8.

Of 430 patients the percentage distribution in religions is: Protestants, 45.4; Catholics, 39.3; Hebrew, 2.3; Christian Science, 0.5; Confucian, 0.5; Buddhist, 0.5; none, 2.6; not stated, 9.1.

The following nativity table may also be given:

| | Men | Women | Men and Women |
|----------------|-----|-------|---------------|
| American | 842 | 720 | 1562 |
| Foreign | 450 | 377 | 827 |
| Unknown | 34 | 18 | 52 |

Of 156 men and 143 women of American nativity, 72 men and 77 women respectively are natives of California.

In addition to these statistics we would append the following:

From Holbrook¹

| | | No. | Per cent |
|--|--|------|----------|
| Patients examined | | 1600 | 100 |
| White males with positive Wassermann..... | | 50 | 8 |
| White females with positive Wassermann..... | | 20 | 4 |
| Colored males with positive Wassermann..... | | 15 | 7 |
| Colored females with positive Wassermann..... | | 23 | 11 |
| White male and female with positive Wassermann | | | 6 |
| Colored male and female with positive Wassermann | | | 9 |

| From Lowry ² | Male | | Female | | Male and female | |
|---------------------------|------|----------|--------|----------|-----------------|----------|
| | No. | Per cent | No. | Per cent | No. | Per cent |
| Cases treated | 864 | 100 | 736 | 100 | 1600 | 100 |
| Wassermann positive | 164 | 19 | 92 | 12.5 | 256 | 16 |
| Wassermann doubtful..... | 37 | 4.3 | 25 | 3.4 | 62 | 3.9 |
| Wassermann negative | 663 | 76.7 | 619 | 84.1 | 1282 | 30.1 |

From Greene³

| | |
|---|------|
| Admissions | 2117 |
| Number diagnosed as dementia precox..... | 495 |
| Per cent of the latter having syphilis..... | 1.6 |

The following statistics are all taken from Plaut.* They are in large part quotations from other writers.

| | Male | | Female | | Male and female | |
|----------------------------------|------|-----|--------|-----|-----------------|-----|
| Admissions | 4418 | 100 | 3315 | 100 | 7733 | 100 |
| Syphilicities | 1124 | 25 | 496 | 15 | 1620 | 21 |
| Wassermann positive | 991 | 22 | 430 | 13 | 1421 | 18 |
| Paretics | 664 | 15 | 213 | 6 | 877 | 11 |
| Tabes | 28 | .7 | 4 | .1 | 32 | .4 |
| Paresis, congenital cause..... | 15 | | 6 | | 21 | |
| Tabes, congenital cause..... | 2 | | 2 | | 4 | |
| Lues cerebro-spinal cong. cause. | 7 | | 3 | | 10 | |

From Munich for pregnant women—

| | | |
|--|------|-----|
| Cases | 2000 | 100 |
| Syphilitic | 172 | 8.6 |
| From Freiberg, pregnant (country) women cases and per cent positive..... | 250 | 3.2 |
| From Heidelberg, Bonn, and Cologne, pregnant women cases and per cent positive..... | 2078 | 7.4 |

In Halle, Heynemann found 10 per cent of pregnant women positive.

In Prague, Wagner found 5 per cent married and 8 per cent single women in pregnancy to be positive.

At the Krupp works, of 944 pregnant women, 1.5 per cent were positive.

At Munich Hubert (1912-1915) in the Romberg Klinik found about 8.5 per cent cases positive in a series of 17,294. The same author, 1915-1918, finds more than 10 per cent positive in a series of 13,982 cases.

Schrumpf in Berlin during the recent war found 7.46 per cent cases positive and 9.6 per cent cases negative but with diseases probably due to lues. Cases were examined consecutively.

Port in the city hospital at Augsberg, 1921-23, found—

| | No. cases | No. positive | Per cent positive |
|--------------------------------------|--------------|-----------------|----------------------|
| Men between 50 and 60..... | 93 | 19 | 20.4 |
| Men over 60..... | 82 | 17 | 20.7 |
| Women between 50 and 60..... | 54 | 15 | 26.3 |
| Women over 60..... | 57 | 12 | 21 |
| Men and women over 60..... | 105 | 21 | 20 |
| Men and women between 50 and 60..... | 73 | 12 | 16.4 |

Hieronymus in the hospital for the insane at Lauenberg finds:

| Psychosis | No. cases | No. positive |
|----------------------------|-----------|--------------|
| Dementia precox | 554 | 10 |
| Alcoholics | 33 | 1 |
| Idiots and imbeciles | 71 | 13 |
| Psychopaths | 38 | 4 |
| Manic depressives | 109 | 1 |
| Senile dementia..... | 34 | 0 |
| Arteriosclerosis | 24 | 0 |
| Paranoia | 9 | 0 |
| Epilepsy | 119 | 0 |

DISCUSSION.

It may seem off-hand that some of these tables have no place in this discussion. Yet one of our chief concerns is to determine how closely patients of insane hospitals correlate in the incidence of syphilis with members of other institutions and with the populace at large. We may learn from comparison with such figures the answers to two important questions, namely:

1. How accurately can we determine the conditions of society in general by examination of special classes of patients?

2. What is the relation of syphilis to insanity?

Obviously such scattered statistics cannot answer the question. But a start has been made. It so far appears that, outside the disease of paresis and cerebro-spinal syphilis, no direct relation exists between syphilis and insanity. Williams⁸ believes that the spirochete after successive passages through the host acquires a neurotropic affinity and that this may account for the large percentage of paretics. According to Plaut,⁴ syphilis affects the central nervous system in 10 per cent of cases in males and 8.3 per cent of cases in women.

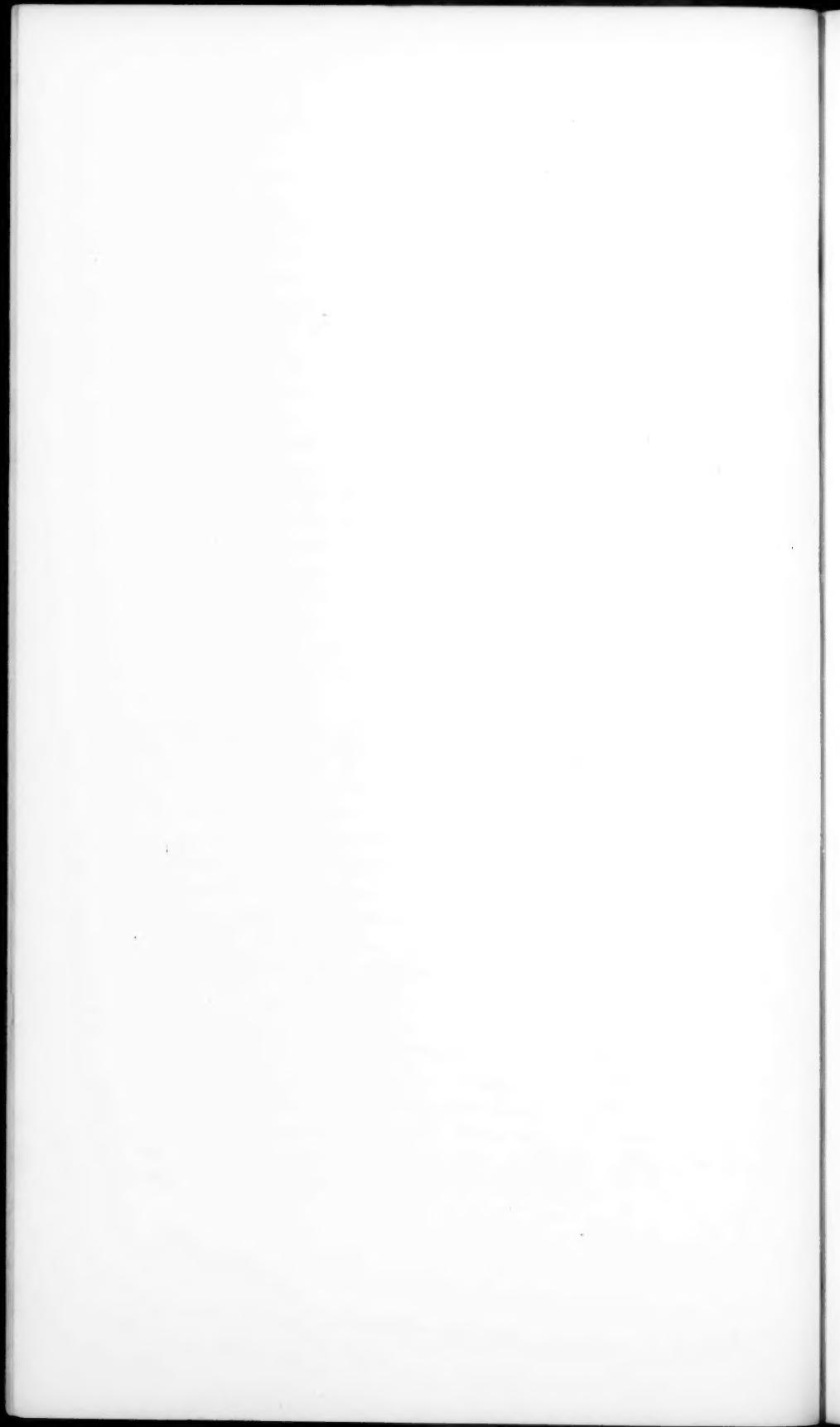
The relative frequency of paresis in males as compared to females is of special interest. No explanation of this is at hand. Neither mental strain nor station in life seem to predispose to this disease, contrary to popular opinion. It seems that mental disease in general inhibits paresis for members of insane hospitals infected with the spirochete rarely develop general paralysis. Another curious phenomenon of similar character is the rarity of syphilis in epilepsy and manic depressives. Plaut has previously noted this fact in the article to which we have referred.

Psychoses showing the greatest percentages of syphilitics are alcoholism, narcotic addicts, mental defectives and involution psychoses. According to Plaut * 80 per cent of mental defectives are infected congenitally, while about 6.5 per cent of all syphilis is congenital. The same article suggests immorality as the dominating cause of syphilis in psychopathic individuals. On the whole, percentages of syphilitics other than those in the two categories mentioned (paresis and cerebro-spinal syphilis), as found in hospitals, probably represent quite accurately the venereal condition of the communities upon which they draw.

There is a matter concerning incidence of syphilis in the insane that bears investigation. This concerns popular prejudice. Opinion seems rife that venereal disease is the dominant factor in filling hospitals for the insane. This is true for approximately one patient in six. While it is no doubt unwise to minimize the importance of syphilis, it may be well to set public opinion right in this matter.

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SPINAL DRAINAGE IN ALCOHOLIC DELIRIA AND OTHER ACUTE ALCOHOLIC PSYCHOSES.*

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Spinal drainage has been advocated in many acute psychoses manifesting manic,¹ toxic or certain organic states² and has been used with varying success in these conditions, but the use of this procedure in the treatment of alcoholic deliria however has been very limited apparently, since very little can be found in the literature especially relevant to the above condition.

Since the advent of prohibition, alcoholic psychoses of acute type have tremendously increased, due to the consumption of large quantities of liquor and the poor quality of the same, often so poisonous in its reactions; also, to a lesser extent, due to the substitution of various tonics and other medicinal drugs with high alcoholic content when straight liquor is not obtainable. The results have been serious, toxic reactions with development of acute delirium or other type of psychoses in proportionately greater numbers than has heretofore obtained.

We are agreed with other writers that these patients with acute toxic or delirium reactions are less amenable to the ordinary routine hospital treatment than had been the case before prohibition, so that it has been necessary to hospitalize these cases for longer periods of time.³ This has resulted also in seriously crowding city and state hospitals with these patients.[†]

It seemed to me that the procedure which offered relief in certain of the functional and organic conditions ought certainly to be helpful in the alcoholic psychoses. The *raison d'être* for spinal

* Read at a meeting of the neuropsychiatric section of the Baltimore City Medical Society, March 6, 1930.

† It might be of interest to note here, that a statistical comparison of a three-year period previous to and since the passage of the 18th Amendment, of admissions to our psychopathic hospital, of individuals diagnosed as alcoholic delirium or other type of acute alcoholic psychoses, show these cases to have more than quadrupled during 1925-26 and 27 as compared with 1912-13 and 14, the years taken for statistical comparison.

drainage in the latter conditions of course was to reduce edema, congestion and irritation which occur in the brain structures, bringing about symptoms of delirium, depression, confusion and acute hallucinatory states due to alcoholic addiction or poisoning. It further suggested a reduction in the hospital stay of the patient following a more rapid recovery and consequently most desirable from an economic point of view.

Until 1928, spinal drainage was used with fair success but more or less sporadically in our hospital. However, for the past two years, namely 1928 and 1929, delirium tremens and certain other of the acute alcoholic psychoses have been treated with spinal drainage as a regular therapeutic measure.

The results obtained have been so eminently satisfactory, often startling in the almost immediate remissions produced, that it is now being advocated for use in all types of acute alcoholic psychoses.

The rational or mode of treatment is simple, a spinal puncture is done within 24 hours after patient's admission to the hospital. 30 to 50 cc. or more of the spinal fluid should be drained.

In approximately 48 per cent of the cases drained, this fluid came out under considerable pressure. It often happens, however, due to normal or even reduced pressure, generally due to patient's extremely poor physical condition, that only much smaller amounts of the fluid can be withdrawn, but even 20 to 25 cc. may bring about as good results.

Not infrequently the patient, within 24 to 48 hours after this treatment, although he may have been in the most intensive delirium, becomes normally active and shows almost complete remission of his mental symptoms, particularly the delirium. It is important however that the patient be punctured early in order to get the best results. If the patient's condition and symptoms evidence no change after 48 hours, another puncture with drainage may be done.

The total number of patients treated during the two-year period stated was 121. Of this number, 96 were listed under the following acute psychotic reactions: Acute alcoholic delirium and delirium tremens, acute alcoholic hallucinosis, acute alcoholic depression and confusion, pathological intoxication. All of these were drained one or more times. The chronic forms, such as paranoid states, chronic hallucinosis and alcoholic psychosis in combination with other conditions of chronic form, numbered 25. These latter patients did

not receive spinal drainage, because sometime previous a series of patients with similar conditions evidenced but slight or no improvement at all under the suggested therapy.

In approximately 78 per cent of the cases drained, complete remissions mentally, with recession of all hallucinations, delusions, tremors, etc., occurred within three to seven days after spinal drainage. Where the patient's physical reaction is good, much supportive treatment is unnecessary.

However, the average stay of the patients in the hospital was generally delayed in a large proportion of cases, due to marked physical debility or other associated somatic conditions, and it would have been obviously unwise to send them out under these circumstances. With recession of mental symptoms, rehabilitation and correction of the physical as well as other somatic conditions are intensively carried out so that the patient's resistance will be sufficiently built up before parole or discharge can be considered. The advisability of this procedure is soon apparent when it is noted that only 6, or .6 per cent, of the 96 patients paroled or discharged during the two-year period were readmitted since the treatment was instituted. Moreover, these patients recovered as rapidly on their second admission with spinal drainage as previously.

No special after treatment was required in the greater majority of the cases. They convalesced very rapidly under a well regulated diet, rest, recreation and light occupational therapy. There were, however, a limited number of patients, 11 per cent, where the physical reaction needed intensive adjustment or they had, associated with the alcoholic condition, such diseases as pneumonia, pellagra, rheumatic arthritis, polyneuritis, cardio nephritic sequelæ, secondary and tertiary lues and so on.

In these cases, of course, definite treatment of the associated conditions was most obviously desirable and the patient's stay in the hospital was of necessity prolonged for anywhere from three to seven months in order to accomplish this. A very small number in the above group also developed definite affective reactions of the manic-depressive type. These reactions come on suddenly and always after the patients were normally reactive in all directions for from six to ten days after spinal drainage. The poor resistance both physically and mentally of these patients was greatly responsible for this. Following recovery, these patients evidenced no

abnormal trends and were able to return and take up their previous vocations in the community without difficulty.

In the 78 per cent of cases previously indicated, the average stay in the hospital was 30 days. This is quite a reduction when compared with the stay of patients in previous years, before this form of treatment was started and whose time in the hospital averaged approximately 48 days.

Death occurred in 10, or 10 per cent, of the total number with acute alcoholic psychotic reactions. In all 10 patients the cause of death was acute alcoholic delirium. The average stay of those that died was 14 days. Even in these cases, the stay in the hospital was definitely prolonged when spinal drainage was instituted although it was obviously certain from the first, because of precarious physical and mental state of these patients, that they had no possible chance for recovery or improvement. Here again the value of the treatment is definitely proven, our statistics for the three previous years showing the average stay in the hospital of all alcoholic admissions, without this treatment, who died of delirium, was only seven days.

The statistical tables, listed below, show the number of patients treated and length of their stay in the hospital after spinal drainage.

TABLE A.

| | 14 days or less | |
|--------------|--------------------|--|
| 1 V. M..... | 2 | |
| 2 A. H..... | 3 | |
| 3 J. L..... | 2 | |
| 4 J. E..... | 3 | |
| 5 M. J..... | 7 | |
| 6 A. P..... | 7 | |
| 7 M. M..... | 8 | |
| 8 T. M..... | 10 | |
| 9 J. B..... | 10 | |
| 10 J. H..... | 12 | |
| 11 E. S..... | 12 | |
| 12 W. P..... | 12 | |
| 13 W. B..... | 13 | |
| 14 L. S..... | 7 | |
| 15 H. W..... | 13 | |
| 16 E. A..... | 6 | |
| 17 J. S..... | 8 | |
| 18 J. M..... | 13 | |
| 19 D. S..... | 12 | |
| 20 A. P..... | 13 | |

TABLE B.

| | 21 days or less | |
|--------------|--------------------|--|
| 2 J. B..... | 17 | |
| 3 C. B..... | 16 | |
| 4 M. H..... | 16 | |
| 5 J. K..... | 15 | |
| 6 P. M..... | 19 | |
| 7 W. R..... | 16 | |
| 8 H. W..... | 16 | |
| 9 M. S..... | 21 | |
| 10 F. S..... | 16 | |

TABLE C.

| | 28 days or less | |
|--------------|--------------------|--|
| 11 J. C..... | 25 | |
| 12 J. K..... | 25 | |
| 13 W. K..... | 24 | |
| 14 G. L..... | 28 | |
| 15 F. S..... | 24 | |
| 16 J. S..... | 23 | |
| 17 B. N..... | 23 | |
| 18 A. T..... | 26 | |
| 19 F. T..... | 28 | |
| 20 F. F..... | 22 | |
| 21 S. G..... | 25 | |
| 22 M. O..... | 28 | |
| 23 J. H..... | 28 | |
| 24 C. Z..... | 28 | |
| 25 B. W..... | 23 | |
| 26 C. Z..... | 28 | |
| 27 W. C..... | 20 | |
| 28 G. L..... | 20 | |
| 29 B. R..... | 28 | |

TABLE D

| | 40 days or less |
|-----------------|--------------------|
| 1 J. H..... | 34 |
| 2 J. A. L..... | 36 |
| 3 G. M..... | 34 |
| 4 M. S..... | 38 |
| 5 W. L..... | 38 |
| 6 A. S..... | 31 |
| 7 W. H. Mc... | 36 |
| 8 P. P..... | 31 |
| 9 S. L..... | 39 |
| 10 B. P..... | 36 |
| 11 S. S..... | 31 |
| 12 J. A. B..... | 33 |
| 13 G. M..... | 31 |
| 14 G. H..... | 40 |
| 15 A. G..... | 30 |
| 16 A. S..... | 40 |
| 17 M. V..... | 31 |
| 18 E. S..... | 32 |

TABLE E

| | 60 days or less |
|--------------|--------------------|
| C. C..... | 47 |
| M. G..... | 46 |
| T. M..... | 54 |
| J. R..... | 50 |
| G. W..... | 49 |
| J. C. W..... | 60 |
| K. M..... | 42 |
| J. W..... | 52 |
| J. B..... | 42 |

TABLE F.

| | 7 months or less |
|-----------|---------------------|
| E. H..... | 74 |
| E. H..... | 89 |
| L. W..... | 90 |
| J. D..... | 90 |
| W. D..... | 113 |
| E. J..... | 120 |
| M. S..... | 115 |
| F. C..... | 155 |
| H. M..... | 180 |
| W. C..... | 220 |
| H. S..... | 220 |

The following cases are illustrative of acute alcoholic deliria and other alcoholic psychoses treated by the drainage method.

E. G., colored man, age 45 years, admitted April 5, 1928, discharged April 17, 1928. Committed upon certificates of two physicians because of peculiar behavior, hallucinations, suspicions, confusion, ideas that a gang was after him, etc. On admission patient was partially oriented, seemed confused, stupid and could give no coherent statement relative to his behavior previous to commitment. He appears hallucinated and delusional. Physical examination essentially negative except for tremors and confusion. Serology, blood chemistry and urinalysis all negative. Summary of mental findings: Patient quiet and orderly but seemed confused and perplexed, movements retarded and slow; answers questions slow and hesitant. He is uneasy, anxious, somewhat sad. There is a suggestion of delusional ideas, claims 40 men are after him, thinks they are trying to do something to him; people accuse him of being a revenue officer. Patient admits alcoholism and shows a rather impaired insight and judgment. Diagnosis: Alcoholic psychosis, acute alcoholic confusion. Treatment and course in hospital: Spinal drainage was done within 12 hours after admission to the hospital. About 25 cc. of fluid was withdrawn under normal pressure, examination of same negative. Patient immediately began to show improvement and within four days he appeared completely recovered mentally from his confused state at which time he fully admitted his drinking and conceded that acute alcoholism was perhaps the cause of his peculiar mental state. From that time on patient went on to complete remission; working about the hospital, very helpful, cooperative, well oriented and evidenced good insight and judgment. He was discharged 12 days after admission, as completely recovered.

J. B., white man, age 48 years, admitted April 16, 1928; paroled April 26, 1928; discharged from parole July 27, 1928. Committed upon certificates of two physicians who claim that he had delusions of a religious nature, arrested for creating a disturbance in church, ideas of grandeur, apparently confused. On admission he appeared somewhat dirty, unkempt, claims to have had two previous admissions in other hospitals for short periods of time. He admits drinking whiskey, creating disturbance in church, confusion, disorientation and unable to give exact details as to his behavior, religious delusions, ideas of grandeur evident. Physical examination shows evident skeletal deformity, right dorsal scoliosis, lumbar lordosis with coxa vara; left leg shorter than right by two inches; k. k. hyperactive, suggestive left Babinski; slight cardiac enlargement, mitral insufficiency; scars about chest due to gun-shot wounds; left inguinal reducible hernia. Serology, blood chemistry and urinalysis negative. Summary of mental findings: Patient appears confused, evidences delusional concepts of a religious nature with some grandiose ideas such as having ability to do things better than others; a tendency to boisterousness and quick anger. He is disoriented and shows poor insight and judgment. Patient admits drinking but does not realize that same is the cause of his mental condition. Diagnosis: Psychosis with acute and chronic alcoholism. Course in hospital and treatment: Spinal drainage was done within 24 hours after admission, about 20 cc. of fluid drained under normal pressure. Patient began to improve after that and from then on was normally reactive in all directions, cooperative and useful. He needed no after treatment and was paroled 10 days after admission, having entirely recovered.

M. H. M., white woman, age 29 years, admitted August 27, 1928; paroled September 4, 1928; discharged from parole December 20, 1928. Committed upon certificates of two physicians who state that she is hallucinated, disoriented, has delusions of a persecutory nature, is agitated, incoherent, somewhat excited. On admission patient was very restless, complained of being sick, says she has womb trouble, visually hallucinated, complains of seeing green worms, babies mishandled, bugs, etc. Physical examination: Slightly sluggish patellar reflexes and Achilles reflexes absent, suggestive rhomberg, right axillary neuritis, otherwise negative. Serology, blood chemistry and urinalysis negative. Summary of mental findings: Shows patient to be fearful, complains of seeing babies mishandled, green worms annoying her, saw big crabs, flowers jumping, pictures on the wall moving and had other visual disturbances. She was rather nervous, shaky, had severe headaches. Partially oriented however, insight and judgment limited. Patient admits drinking heavily and then she got the "nannies." Diagnosis: Alcoholic psychosis, acute alcoholic delirium. Treatment and course in hospital: Within 12 hours after admission patient was punctured and fluid to the amount of 40 cc. was drained under some pressure, but patient shortly thereafter seemed considerably relieved. Within 48 hours she was normally reactive, quite bright and admitted her marked hallucinatory ideas before, as she expressed it "her back was fixed" (spinal drainage). Insight and judg-

ment became normal; mental activity more sharp and in every way patient appeared rational. She was paroled eight days after admission, in care of husband, showing complete recovery.

A. P., colored man, 22 years, admitted September 29, 1928; discharged October 6, 1928. Committed upon certificates of two physicians who claim that he showed motor and psychic excitement, endless flow of ideas, chiefly of grandeur, violence, etc. On admission he appeared very loquacious. Seemed, however, partially oriented, recognized hospital as such, calling it by name, claimed that his aunt was sick, denying having anything wrong with him. Physical examination essentially negative except for hyperactive deep reflexes. Serology, blood chemistry and urinalysis negative. Summary of mental findings: Patient evidenced paranoid delusions and acute manic excitement for first day or so after admission; he had flight of ideas and marked psychomotor activity, noisy at night, boisterous and meddlesome. He admitted drinking. When attention could be obtained, shows marked elation, denies hallucinations, talks of making lots of money and being better than others, having a greater ability than others. He has a definite history of acute alcoholism. Admits escaping from another institution. Diagnosis: Alcoholic psychosis, acute alcoholism, hypomanic condition. Treatment and course in hospital: Within five hours after admission, spinal drainage was done and same came out under considerable pressure; about 50 cc. of fluid was drained, examination of same negative. Patient continued hypomanic for several days after admission then he gradually cleared up and within a week was normally reactive in all directions, cooperative, and acute manic state disappeared entirely. He was returned to the institution from which he escaped, eight days after admission, although he showed fairly good insight and judgment and appeared well oriented in all spheres.

J. J. H., white man, age 36 years, admitted for the first time January 24, 1928; paroled February 21, 1928; discharged from parole May 22, 1928. Committed upon certificates of two physicians who claim that he showed delusions of persecution, talked at random, shows evidence of alcoholic insanity, imagined that he was accused by others of being a sexual pervert. On admission he evidenced poor physical condition, answered questions slowly although he was well oriented, complained of nervousness and of being sick. Gives history of alcoholic addiction. Physical examination essentially negative, Serology, blood chemistry and urinalysis negative. Summary of mental findings: Patient is hallucinated, says he hears people accuse him of being a sexual pervert, is nervous, tremorous, anxious and very much worried. He admits alcoholism and says that when he drinks it gives him false strength; reactions slow, hesitant and he shows some apathy, thinks someone is trying to poison him. Insight and judgment fair. Diagnosis: Alcoholic psychosis, acute alcoholic hallucinosis. Treatment and course in hospital: Spinal drainage was done within 24 hours after admission and same came out under considerable pressure; about 35 cc. of fluid drained. There were no other reactions from the drainage, and fluid, on examination, was negative. Within five days after drainage, patient was

entirely clear of hallucinations, tremors, restlessness, etc. Under hospital routine he evidenced general physical improvement, gained in weight, showed cooperativeness and good insight and judgment and was normally reactive in all directions. He was paroled in care of wife 28 days after admission. Second admission: Admitted October 12, 1928; discharged October 24, 1928. Committed upon certificates of two physicians who claim patient to be confused, emotionally unstable, evidenced tremors due to acute alcoholism. On admission he was much confused, stupid, irrelevant and incoherent, partially oriented. At this time he appeared in acute delirium and was visually disturbed. Physical examination essentially negative. Serology, blood chemistry and urinalysis negative. Summary of mental findings: Patient claims to be nervous both night and day, visually sees machines when there are none present, hears voices, they say all sorts of things to him. He realizes that they are not true but at the time he hears them he thinks they are, often these voices keep him awake; complains of dizziness; is tremorous and shaky, more or less depressed. With history of acute alcoholism excessively for a number of weeks previous to admission, diagnosis of alcoholic psychosis, acute alcoholic delirium was made. Treatment and course in hospital: Immediately after admission spinal drainage was done, about 40 cc. of fluid was drained under slight pressure; examination of fluid negative. Three days after puncture, patient was entirely clear mentally, evidenced good insight and judgment. He became well oriented and all hallucinations and other peculiar ideas entirely disappeared. He admits that his resistance is poor, but blames injuries in the army as the cause of same. Twelve days after admission he was discharged in care of wife, being normally reactive in all directions and able to go on with his business on the outside.

W. B., colored man, age 23 years, admitted December 28, 1928; paroled January 10, 1929; discharged from parole April 23, 1929. Patient was committed by order of court from city jail where he was declared to have become violently insane, necessitating commitment. On admission he showed much confusion, irrelevance and incoherence; he was entirely disoriented, seemed hallucinated, particularly visually, he could see animals, bugs, etc. He also heard voices and appeared somewhat delirious. Evidenced elevated temperature of 101 degrees. Physical examination negative except for B. P. 150/92, general oral sepsis, moderate amount of arteriosclerosis, superficial reflexes absent. Serology, blood chemistry and urinalysis negative. Summary of mental findings: Patient quiet but confused, inclined to be somewhat delirious and restless, he has visual and auditory hallucinations, although same are extremely moderate at the present time. Patient is poorly oriented with limited insight and judgment. He admits drinking corn whiskey, memory deficient. Claims he has been drinking steadily for the past five years, particularly more intensively of late. Diagnosis: Alcoholic psychosis, acute alcoholic delirium. Treatment and course in hospital: Several hours after admission spinal drainage was done and approximately 30 cc. of fluid drained under normal pressure. Examination of fluid negative. Forty-eight hours after drainage, patient was quite bright, clear mentally with all hallucina-

tions and delusions entirely removed. For the rest of his stay here he was normally reactive in all directions, cooperative and showed good insight and judgment. He was paroled in care of wife 12 days after admission as having completely recovered.

L. S., white man, age 38 years, admitted February 27, 1929; discharged March 6, 1929. Committed upon certificates of two physicians who claim that he attempted suicide by cutting his wrists and throat; was depressed and hallucinated. Evidenced auditory and visual hallucinations, sees visions and objects of a threatening nature, hears people talking about him. On admission patient appeared nervous and restless, complaining that people were talking backward and forward about him, that it was "nasty" talk, also that for about five days he had not been eating any thing but drinking heavily. Physical examination: Negative except for evidence of wounds over throat and wrist; suggestive rhomberg, tremors and nervousness. Serology, blood chemistry and urinalysis negative. Summary of mental findings: Patient appears nervous and shaky, speaks of being hallucinated, hearing voices talking about him, seeing various threatening objects before him which he cannot definitely describe. He is very haggard looking, somewhat restless and occasionally depressed. Admits attempting suicide because of these hallucinatory episodes and lack of food. Patients admits alcoholism for a number of days previous to admission. He is fairly well oriented but memory poor however for recent events; limited insight and judgment. Diagnosis: Alcoholic psychosis, acute alcoholic delirium. Treatment and course in hospital: Spinal drainage was done several hours after admission; 24 hours after drainage, patient was entirely normal and reactive in all directions. He immediately realized the cause of his condition and evidenced good insight and judgment from that time on and a general tendency to help and be cooperative in every way. He was discharged in care of himself, seven days after admission, having entirely recovered.

M. J., white man, age 36 years, admitted June 18, 1929; paroled June 25, 1929; discharged from parole November 27, 1929. Committed upon certificates of two physicians who claim that patient is overtalkative, argumentative, saw Jesus, boasts he can speak in 12 different languages and evidenced marked tremor of hands and face, slurring speech. On admission he was depressed, crying, seemed afraid and begged that nothing be done to him. Patient was confused, partially oriented. Denies alcoholism, stated that he had painter's colic. There is a history however of patient's addiction to alcohol. Physical examination: Patient appears gaunt, emaciated, B. P. 138/78; hyperactive deep and superficial reflexes; poor dental work, numerous teeth missing; tubercular type of chest, otherwise negative. Serology, blood chemistry and urinalysis negative. Summary of mental findings: Patient was disheveled, tremorous, agitated and afraid of his life. He had hallucinatory ideas such as seeing the face of Jesus, extremely boastful, claims that he could speak all kinds of languages; appeared obstinate and an illiterate individual, refusing to give answers unless prompted or stimulated to answer. Insight and judgment limited; memory limited for recent events. Diagnosis:

Alcoholic psychosis, pathological intoxication. Treatment and course in hospital: Spinal drainage was done shortly after admission and almost over night patient showed complete remission in his mental condition. He was, from that time on, normally reactive, cooperative and in good shape both physically and mentally. He was paroled in care of wife seven days after admission as having entirely recovered.

W. P., white man, age 42 years, admitted December 11, 1929; paroled December 23, 1929; discharged from parole April 10, 1929. Committed upon certificates of two physicians who claim patient thought two men were after him to do him some harm; he could see these men and could hear their voices as they discussed his condition. He attempted to jump out the third-story window because of fear of these people. On admission he seemed quiet but restless and nervous; claimed there were some men after him to kill him, could see them and hear them as they discussed his case. Physical examination negative except for fine tremor of fingers and B. P. 145/95. Serology, blood chemistry and urinalysis negative. Summary of mental findings: Patient claims that he stopped drinking suddenly a few days previous to admission and began to see things, funny faces and heard hens calling him, also saw some other things such as buildings falling, lumber piles collapsing, etc. He has been generally quiet, but still insists that two men, former buddies, are after him to kill him, they attempted to break into his house and he threatened to shoot them if he had a gun; insight and judgment fair. Patient admits that probably acute alcoholism is cause of his condition. Diagnosis: Alcoholic psychosis, acute alcoholic delirium and hallucination. Treatment and course in hospital: Within several hours after admission patient was drained and about 35 cc. of fluid removed under slight pressure. Examination of fluid negative. Within 48 hours after drainage, patient was entirely normal mentally, well oriented, cooperative and evidenced good insight and judgment into his condition. Twelve days after admission he was paroled in care of wife, having completely recovered.

T. M., white man, age 31 years, admitted December 29, 1929; paroled January 8, 1930; discharged from parole April 10, 1930. Committed upon certificates of two physicians who claim that he has been threatening to commit suicide with a revolver; appears very much depressed, extremely irritable, restless, tearing hair, shows marked emotional and nervous disorders. On admission patient showed much depression, breath quite alcoholic; appeared entirely disoriented, kept crying that "he wants to die." Physical examination shows hyperactive reflexes, ankle clonus present, some peripheral arteriosclerosis and hypertension, palpable and enlarged inguinal glands. Serology, blood chemistry and urinalysis negative. Summary of mental findings: Patient is disoriented, confused and apparently in acute alcoholic delirium with some depression. He wants to die, blames himself for the suicide of brother-in-law, threatened to end it all with a revolver; cries, pulls at his clothes, wrings hands and is generally disturbed. Admits drinking, but shows poor insight and judgment; does not realize that alcohol is the cause of his condition. Diagnosis: Alcoholic psychosis, acute alco-

holic delirium and depression. Treatment and course in hospital: Shortly after admission about 25 cc. of spinal fluid was removed under normal pressure by drainage. Examination of fluid negative. Twenty-four hours after drainage patient was entirely clear and normally reactive; showed good insight and judgment, admitted that his excessive addiction to alcohol and suicide of brother-in-law were the cause of his trouble. He was paroled in care of wife, 10 days after admission, as having entirely recovered.

CONCLUSION.

Spinal drainage is an effective means of treatment in acute alcoholic delirium states, attended by very little sequelæ and the length of stay in the hospital of patient suffering with these conditions has been materially reduced in 78 per cent of the cases to an average stay of but 30 days. The treatment however is most effective when instituted within 24 hours following admission to the hospital. No after treatment is necessary in the great majority of cases. These convalesced rapidly under the routine hospital care.

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PARANOIA WITH REPORT OF A CASE.*

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Paranoia has been defined by many authors and while the various definitions agree in a general way they are often inadequate and somewhat difficult to understand by the student beginning the study of psychiatry ; especially when he has to read the subject in text books for many months and oftentimes for years before he has the opportunity of actually studying a case.

It seems to us that the best definition of this disease while not brief is the one that includes an outline of the well-known characteristic features. Paranoia is a very slowly progressive psychosis of adult life said to be founded on an hereditary basis characterized by an elaborate well systematized group of persecutory delusions which later become transformed into delusions of grandeur. Hallucinations may or may not be present and when they are, hallucinations of hearing are more common.

The disease has been divided into three stages : (a) The period of analytical concentration ; (b) the period of delusive explication and (c) the period of transformation of personality.

Further paranoia has been classified in a number of different ways but as a rule these classifications have been based upon the presence or absence of hallucinations and upon the particular subject of the delusional state ; for example, the person whose delusions were of a religious nature was called *paranoia religiosa* ; or if he thought himself an inventive genius, *paranoia inventoria* ; or a great reformer, *paranoia reformatoria* ; or if beloved by some one of superior station, *paranoia erotica*, etc.

Some writers prefer to place hallucinatory paranoia in a separate classification. It would seem that this had a rather distinct advan-

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tage, however, some of the celebrated cases in the literature are of the hallucinated form. It is not always an easy matter to determine whether or not hallucinations exist as the paranoiac is very secretive and shrewd.

We believe that the terms paranoid, paranoid condition, paranoid states and many similar phrases have been rather loosely used in psychiatric literature during recent years and this has at times served to confuse the student. It seems to us that the term paranoia had best be reserved for those rare cases properly belonging to this class and that the term paranoid be applied to those conditions actually resembling the true disease.

It is very confusing to refer to the mental symptoms of a given case as having a paranoid trend when in reality they are only delusions of persecution and lacking the elaborate logical systematization which is characteristic of the true disease. These conditions have become so confused and intermingled, even in the minds of psychiatrists, that one constantly hears paranoia referred to as true paranoia or paranoia vera. This, of course, is done to distinguish it definitely from those conditions which have been included in the so-called paranoid group and those cases referred to as having a paranoid trend.

We are presenting this case of true paranoia because of the patient's elaborate system of delusions and the thoroughness with which we have been able to study his entire life, hoping that it may prove as interesting and instructive to others as it has to us. He would be classed by some as a case of paranoia querulans because his insane ideas led him into a prolonged process of litigation. Not only was the patient extremely cooperative, as well as his sister-in-law and associates, but we were fortunate enough to secure his writings of the past ten years. Incorporated in these many pages of writing is the story of his entire life in great detail. In presenting the history we have organized all our information; that given us by the patient, his sister-in-law and that contained in his writings.

The patient was a white man 47 years of age, a native of that part of Austria now included in Czechoslovakia. He was brought to the Philadelphia General Hospital on December 14, 1928, by the police. He had been apprehended by an agent of the Supreme Court and turned over to the local authorities who brought him to the psychopathic department for observation, for they said he had delusions of grandeur and of persecution.

He was clean and quiet. He had no physical complaints but protested against being brought to the hospital contrary to his will. He was negative for all symptoms and denied previous illness of any sort. He had never had any operations or accidents.

His father died at 65 of hardening of the arteries. His mother, aged 76, and a sister, aged 36, are living and well in Austria. One brother died at the age of 41 during the influenza epidemic of 1918. Another brother died in 1924 at the age of 52 in a state hospital for the insane with the mental diagnosis of paranoid dementia praecox. There was no history of tuberculosis, cancer, endocrine, epilepsy or nervous disease in the family.

Our patient received 16 years of schooling in his native country, completing what would correspond to a trade school training here. In 1905 he emigrated to Germany where he stayed until 1911 when he came to America.

He was a tapestry maker by trade, working at this in Austria, Germany, and for the first six years in America. Since 1918 he has spent his time entirely in reading law and writing, being supported during this time by a sister-in-law, who had a boarding house.

He always lived according to system. Every week was like the preceding week. Everything ran by clockwork. Monday, Tuesday, Wednesday and Thursday he would write at his desk; Friday and Saturday he would wash his clothes and clean up his room for Sunday. He was accustomed to take tea at ten o'clock. If it were not ten o'clock he would not take the tea. At the table he always ate in silence. He would never join in a conversation. After he finished he would take his cup and plate to the kitchen and then go into his room.

In summer he raised flowers in his back yard. As soon as the morning glories came up he would cut off all the leaves so that the liquid in the stem would go to the flower and make it larger. With other flowers he did not pull off the leaves because he said different flowers behave differently.

He had no friends. He did not mingle with anyone in the house but spent most of his time in his room or sitting in the yard. Frequently he would take afternoon walks but always went alone. He seemed to think that he was better than the rest of his associates.

He has never married because he does not like women and usually avoids their company. He does not want to get married until his business is properly settled, so that he can raise his children well. He denies masturbation and homosexual tendencies. There was no suspicion in the boarding house that he engaged in such practices. However, he did say that he would rather sleep with a man than with a woman for he was decent and tried to be moral. He never used alcohol or drugs in any form but he was an habitual smoker.

The patient was well nourished and well developed. The general physical and neurological findings were all normal, except the nasal septum was deviated and the teeth were in poor condition. The urinalysis, chemical analysis of the blood, Wassermann of the blood and spinal fluid were normal in all respects.

The patient sat quietly in the ward holding himself aloof from the other patients. His air was that of pre-occupation and superiority. He spoke in a free and easy manner. He talked willingly and answered promptly and logically. There was a clear continuity of thought and speech. He was well informed on current and past events. He was held in the hospital against his will and would take the matter of his incarceration to the courts when he was released.

He said that he had inherited considerable wealth in the form of valuable papers which his grandfather had brought from Austria to America to avoid confiscation by the government. He either was too secretive or did not know the exact nature of these papers but said they were stocks and bonds of railroads and governments. He recalls seeing these papers in a box the day they were loaded on a wagon for transportation. He was then five years of age. These papers were placed in a safety deposit vault in Philadelphia. When the grandfather returned to Austria he took a receipt for the wealth back with him, the treasure remaining in a bank in Philadelphia. This certificate was passed down to the patient's father. The patient's older brother, who had come to this country, made a trip to Austria and secured this certificate. Upon presenting this certificate at the bank he was given a key to a safety deposit box. When the brother died the key was turned over to the patient who still has it in his possession. The certificate, however, together with the will and other effects of his brother fell into the hands of the Registrar of Wills. This official refused to surrender or disclose the whereabouts of this certificate when requested by the patient. The patient took the case to Common Pleas' Court No. 5 but received no justice. The case was transferred to various courts; Orphans Court and the Supreme Court of Pennsylvania; but in no instance did he receive justice so he took the case to the Supreme Court of the United States which returned it to the lower tribunal. Then followed letters to the Senate, the House of Representatives, the Attorney General, the Governor of Pennsylvania and many other officials. As a last resort he wrote a letter to the President of the United States (Fig. 1). The President did not answer.

Ever since the brother's death ten years ago he has been busily engaged trying to recover these papers. He has studied law books, the Constitution of the United States and many other documents and has carried his cases without counsel through all the courts. Now, in addition to the heritage from his grandfather, he was trying to recover the estates of his two brothers. At last he has put all his cases in the hands of the Consul of the Czechoslovakian Republic for he is a citizen of that country by birth.

The patient presented no hallucinations whatsoever, no paresthesias nor ideas of reference or influence.

The most interesting feature of this case is the large amount of reading and writing that he has done during the past ten years. We have secured a portion of these writings in the form of three petitions addressed to the Consul of the Czechoslovakian Government at Pittsburgh. He made duplicate copies of these petitions and we were fortunate enough to secure both

copies of the third petition and one copy of the first and second petitions. One copy of the third petition which was brought in a sealed package measuring 8 by 11 by 14 inches, consisted of seven divisions, totaling 392 pages. Each part was neatly wrapped in white paper and sealed with wax. Each part was contained in a handsome home-made portfolio constructed of cardboard covered with wall paper. Black cloth was used to decorate the corners, the front and back covers of the portfolio being tied together with black ribbons (Fig. 2).

The three petitions follow the same general style. There are 69 lesser petitions, the pages of each being held together by a string of various colors with little round circles of cloth holding the front and back pages (Fig. 3). The free ends of the string are sealed with wax. He used a thimble for his seal. Each group of petitions have a definite colored cloth, string, and seal. Those of greater importance have a double seal and cloth.

The petitions as a whole are very well organized. There is a table of contents for each petition. Each subdivision deals with one particular subject in a definite logical order. Each lesser petition has a front page stating the nature of its contents. He goes into great detail on every subject. Even the most trivial phases are expanded at great length. His writing is surprisingly neat and legible. He arranges each page with a heading, a number, and leaves a margin. His writings contain many legal phrases and quotations from the Constitution. Thoroughness is his watchword. Every move he has made in the past ten years is recorded in these petitions. He incloses his last will and testament carefully sealed with thread and wax (Fig. 4). Copies of letters which he wrote to various officials are contained therein. Even the date of mailing of these letters, their registration number, the day and time of delivery is all recorded in his writing, and to protect himself he has done all of his work in duplicate. Two petitions he has sent to the Consul of the Czechoslovakian Republic but he was apprehended just prior to mailing the third petition and this fell into our possession.

As one reads and studies the contents of these petitions, 876 written pages in all (Fig. 5), one gains the impression that our patient's delusions have been influenced to a great extent by his environment. Early in life, he says, while in the military service of Austria people plotted against his promotion. He became bitter against the Government of Austria. Later, in 1905, he moved to Germany where he says from the very first he was a marked man. They wanted him to become a German citizen so that they could get his property. He denounced the former Emperor of Germany as the despot of the Huns. In 1911 when he came to this country the immigration authorities misspelled his name, substituting an (i) for an (e). He immediately interpreted this error as part of a deliberate scheme to deprive him of his property. For a time he

continued to denounce the former emperor and then he gradually forgot him and became bitter against the upper classes in this country.

The death of his brother in 1918 brings him into relation with the local courts. With his struggles in court to recover the treasures of his grandfather and the estates of his deceased brothers he gradually turns again, this time developing the delusion that the State of Pennsylvania is depriving him of his property and brings suit for one thousand million dollars against the Commonwealth (Fig. 6). In his efforts to win his suit he takes his case to the Supreme Court of the United States, to the Attorney General at Washington, to the House of Representatives, to the Senate and to the President of the United States. When the latter failed to answer he presented a petition for a warrant for his arrest (Fig. 7). The letters which he wrote to these persons were reproduced in his petitions. Receiving no justice from the judicial, the legislative or the executive branches of our government he finally appealed to the Consul of the Czechoslovakian Republic a few months prior to his apprehension.

A case of paranoia vera has been presented. The elaborate writings of the patient representing ten years of work and aimed at the recovery of his alleged property are described in detail.

His writings were wonderful evidence of the alertness, keenness, foresight and capacity of his mind. His statements, arguments, pleadings and demands in his own behalf were really extraordinary.

Some writers have said that true paranoiacs are born and not made. This seems to be illustrated in the life of our patient as the history of his delusional system dates back to a recollection at the age of five. Everyone's thoughts and actions are influenced by their environment and the case of paranoia is certainly no exception to this rule.

Why our patient crystallized his delusions about governments we do not know, but surmise that it was all built up on the thought that originally his grandfather had taken the family wealth away from Austria to prevent confiscation by the government. Throughout his early life one finds many ideas of persecutory nature. The government under which he lived, and he lived under several, was always the center of his delusional attacks. He was wronged by the government yet it was to this very organization that he

appealed for his lost treasure and then as a last resort he went back to the government of the very country from which the wealth had originally been taken.

He had many ideas of grandeur. He was indignant at the humiliation that a man of his standing and learning should be incarcerated. He said that he did not need a lawyer to carry his cases through court. He boasted repeatedly of his great wealth familiarity with the laws and constitution of this country and could relate from memory any of the articles or amendments to the Constitution.

He had gone through the period of analytical concentration and had now launched in full bloom into delusional explication and indeed many of his ideas would lead one to suspect that he was about to become a transformed personality.

If our knowledge of great wealth is correct the world has only one billionaire but our patient was to be the second one. It is interesting to study this man's delusions and to theorize about their formation. He took his incarceration as a matter of fact and destiny but would take the matter to the courts; a rather optimistic attitude, we thought, in view of his experience with those bodies during the past ten years.



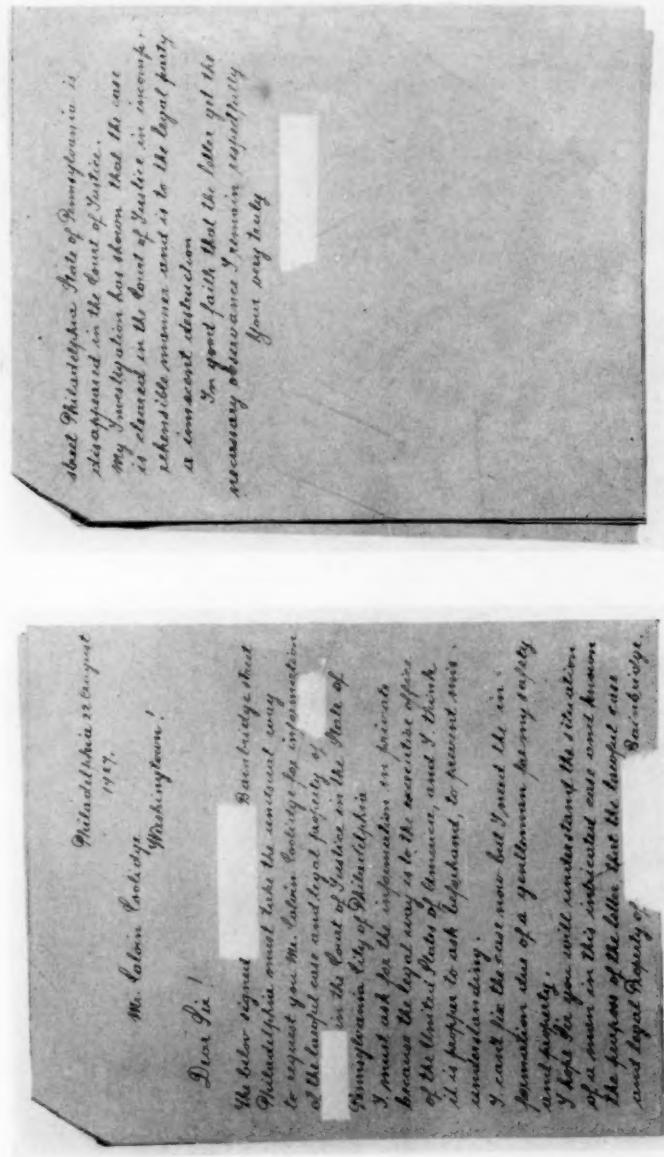


Fig. 1.—Copy of the Registered Letter Mailed to the President of the United States, August 27, 1927.

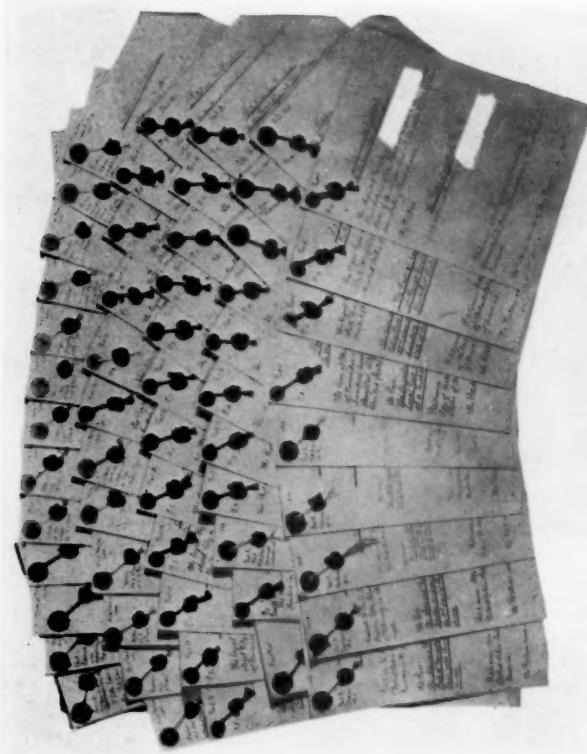


Fig. 3—Showing a Number of His Petitions for Justice. Note the Unique Method of Sealing.



Fig. 2.—Showing One of the Many Self-Made Portfolios in Which He Bound His Writings.

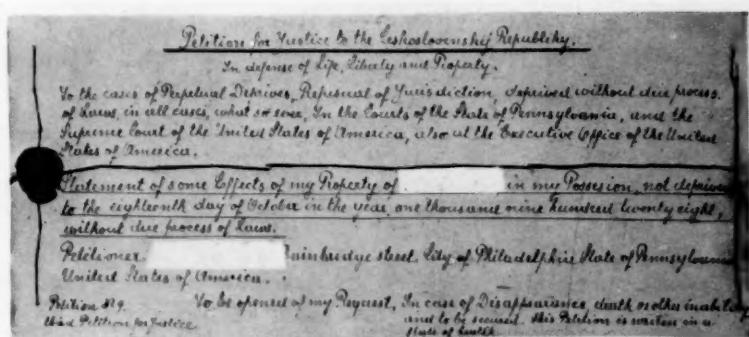


FIG. 4.—Front View of His Last Will and Testament. Note the Ingenious Method of Sealing by Thread and Wax.



FIG. 5.—Illustrating a Portion of His Writings Which Came into Our Possession.

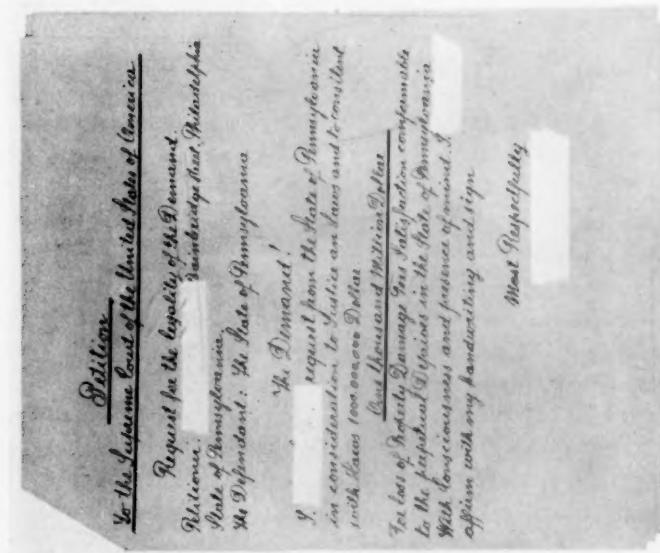
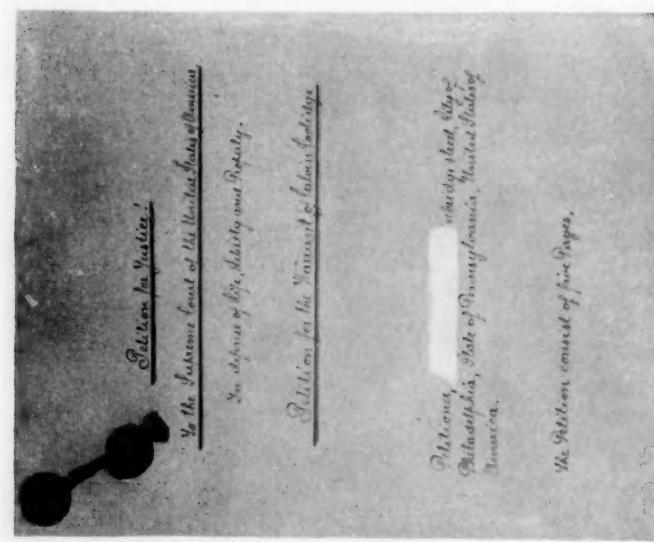


FIG. 6.—His Suit Against the State of Pennsylvania for One Thousand Million Dollars.

FIG. 7.—Petition for the Warrant of the President of the United States.

SOME RANDOM NOTES ON THE HISTORY OF PSYCHIATRY OF THE MIDDLE AGES.*

By SMITH ELY JELLIFFE, M. D.

It is certainly a pleasant task to turn from the consideration of the present trends of psychiatry with all of their complexities and drift back into the eddies of the psychiatry of the Middle Ages, which subject has brought us together this evening to discuss.

To-day, in order to outline the ramifications of the psychiatric discipline one must needs be a superman. The century of Pinel and Esquirol scarcely ran out before its middle when Bayle, Hecker, Kahlbaum and others began the differentiation of types which Pinel and Esquirol had ruthlessly synthesized following the grandiose efflorescent expansion of every conceivable symptom into a species of mental disease made popular by Linnaeus in his classification of plants and animals, and more or less crystallized in the systems of Chiarugi, Sauvages and others.

In the eighteenth century as Garrison has portrayed it, so far as treatment was concerned, "the mentally ill were either chained or caged when housed, or, if harmless, were allowed to run at large—the Tom o'Bedlams of England or the wizards and warlocks of Scotland (Lochiel in Campbell's poem). The earliest insane asylums in the northern countries were St. Luke's in London (1751), the Quaker Asylum near York (1792), and the Narrenturm, or "Lunatics' Tower" (1784), one of the show places of old Vienna, where, as in ancient Bedlam, the public were allowed to view the insane, like animals in a menagerie, on payment of a small fee. The Vienna institution was described by Richard Bright in 1815 as a fanciful, four-story edifice having the external appearance of a large, round tower, but, on the inside, consisting of a hollow circle in the center of which a quadrangular building arose, joined to the circle by each of its corners. The inclosed structure afforded residence for the keepers and surgeons. The circular part contained 300 patients, "whose condition," says Bright, "is far

* In part a contribution to a discussion of The History of Psychiatry During the Medieval Period, by Geo. W. Henry, M. D., at the New York Psychiatric Society, November 7, 1928.

from being as comfortable as in many of the establishments for the insane which I have visited." It was not closed until 1853. Monkmöller's researches on German psychiatry in the eighteenth century, based on the records of Hanoverian asylums at Celle and elsewhere, confirm what Reil¹ wrote of German asylums in his "Rhapsodien" of 1803, and go to show that the theoretic part of the science in this period was nebulous philosophic speculation; insanity being still attributed to yellow and black bile or to heat in the dog days, while symptoms like exaggerated self-esteem, jealousy, envy, sloth, self-abuse, etc., were regarded as causes. The cases treated were all of the dangerous, unmanageable, or suicidal type, and no hope of recovery was held out. There was an extensive exhibition of drugs and unconditional belief in their efficacy. A case that did not react to drugs was regarded as hopeless. Melancholia was treated by opium pills, excited states by camphor, pruritus by diaphoresis, and a mysterious power was ascribed to belladonna; if it failed, everything failed. Other remedies were a mixture of honey and vinegar, a decoction of "Quadenwurzel," large doses of lukewarm water, or, if this failed, "that panacea of psychiatry, tartarus tartarisatus." The costly aqua benedicta Rolandi, with three stout ruffians to administer it, a mustard plaster on the head, venesection at the forehead and both thumbs, clysters, and plasters of Spanish fly, were other resources. Barbarities were kept in the background, but the harsh methods of medieval times were none the less prevalent. A melancholic woman was treated with a volley of oaths and a douche of cold water as she lay in bed. If purgatives and emetics failed with violent patients, they came in for many hard knocks, with a régime of bolts and chains to inspire fear. A sensitive, self-conscious patient was confined in a cold, damp, gloomy, mephitic cell, fed on perpetual hard bread, and otherwise treated as a criminal. The diet—soup, warm beer, a few vegetables and salad—was of the cheapest. There were some attempts at open-door treatment, such as putting the patients to mind geese, sending them to mineral baths at Meyenburg and Pyrmont, or sending them as harvest hands to Holland (*Holland-gehorei*). Marriage was also recommended as a cure."

Pinel (1801), Reil (1803) (see Dr. White's admirable study), Heinroth (1818) (an excellent source for historical research),

¹ See Wm. White. Reil: *Jl. Nerv. & Ment. Dis.*, 43, 1, 1916.

Calmeil (1826), Prichard (1835), Esquirol (1838), were among these early leaders that tried to do away with all this and made possible the new psychiatry, the present-day developments of which need a synthetic study to stand with Adolf Meyer's incomparable review of the psychiatries of Wernicke, Ziehen and Kraepelin and which Bumke has failed to outline, Kleist much more successfully, and Kraepelin most charmingly in his review of a hundred years of psychiatry.

Already there are numerous sources for a general history of psychiatry. Heinroth, Flemming, Feuchtersleben, Leidesdorf, Krafft-Ebing, Kirchoff, Schüle, Monkmöller, Kraepelin—these are outstanding names, all well catalogued in Garrison's classical history and also to be found in the masterly histories of medicine of Sprengel, Haeser, Puschmann, Kornfeld's chapter in Pagel & Neuberger, and others. Laehr's classical bibliography is a mine for all workers in this field from 1459-1799. Laehr's *Gedenktage* also is full of historical notations.

One might wish that a historian of Neuburger's ability and industry might develop the history of psychiatry as he has of neurology. I might mention Neuburger's *History of the Historical Development of the Experimental Physiology of the Brain and Spinal Cord before Flourens* as a classic to be followed in this regard.

It has been more or less the convention to regard the "Middle Ages" as the "Dark Ages." I suspect this is scholastic hokum and am strengthened in this suspicion by the recent monumental work of Sarton on the "Introduction to History of Science"—the first volume of which takes us only to the eleventh century—the days of Omar Khayyam, a work, which it might be mentioned, in passing, certainly calls up an "inferiority complex," for most who would, as amateurs, deal with historical matters.

"Medievalists," Sarton writes (page 17, Introduction), "have given us an entirely false idea of the scientific thought of the Middle Ages, because of their insistence upon the least progressive elements and of their almost exclusive devotion to Western thought, when the greatest achievements were accomplished by Easterners. Thus did they succeed, not in destroying the popular misconception of the Middle Ages as 'Dark Ages,' but, on the contrary, in reinforcing it. The Middle Ages were dark indeed. When most

historians showed us only (with the exception of art) their darkest side; in fact, those ages were never so dark as our ignorance of them."

I trust I will be pardoned for the rambling and pell-mell character of this discussion, since I have very hastily thrown together some suggestions for study rather than offering any careful digestion of the rich amount of material, which in spite of the reigning spirit of scholasticism in the later Middle Ages, offers much of interest not only as to what was not done for the psychotic, but as to prevailing hypotheses and explanations of psychotic situations.

One of the great difficulties in such a discussion first is met with as to what shall be called the "Middle Ages." A still further question arises as to geographical situations. For in the period of depression of the gradual disintegration of the Roman empire, partitions and new arrangement were taking place. It would involve an enormous amount of research to outline what the situation was in the near Orient during the Middle Ages (the far Orient is a still more difficult field). All that has been done thus far had dealt with Western psychiatric medicine when the Western Roman Empire went to pieces. A psychiatric Sarton is needed to introduce us to the Eastern phases of mental science, all too hastily sketched by Friedreich.

This contribution is but a random gleaning from second and third hand sources as I know no Arabic or Persian or Hebrew or any language that would entitle me to be a prophet with honor in these strange linguistic countries.

Medieval psychiatry, rightly or wrongly, may be said to have terminated with the sixteenth century and, so far as our present considerations are concerned, were finished by the Elizabethan period, with Bacon's inspired attitudes towards science and Shakespeare's dramatic outlines of the attitudes and trends of that day. Shakespearian psychiatry has been voluminously dealt with. The analysis of Hamlet by Jones and others would seem to indicate that what Euripides, in his *Oedipus Rex*, knew about the inward nature of the psychotic reaction again came to conscious formulation by Shakespeare in Hamlet, with the displacements, distortions and condensations of object libido attachments, which a growing culture and civilization had managed to put into the super ego, as that mental system has been formulated by Freud. Thus the

Hamlets and Ophelias of the Elizabethan period in a sense were the heritages of the *Oedipus* and *Electras* of the days of Sophocles and Euripides, and only in the twentieth century brought more clearly into conscious formulation by Freud in the light of science as envisaged by the libido theory. In this formulation one is further encouraged by the words of Whitehead (*Science and the Modern World*, p. 76) :

The Pilgrim fathers of the scientific imagination as it exists to-day are the great tragedians of ancient Athens, Æschylus, Sophocles, Euripides. Their vision of fate, remorseless and indifferent, urging a tragic incident to its inevitable issue, is the vision possessed by science. Fate in Greek tragedy becomes the order of nature in modern thought.

Also one may follow the classical historians in saying that Paracelsus (1493-1541) played a determining rôle in the transition of this self-same period. Since he belongs to the renaissance in medicine, which came a few centuries later than the renaissance in art, he can be left for another time in our consideration.

From the eleventh to the sixteenth century, then, one may arbitrarily limit as the medieval period in psychiatry.

Sarton has remarked (page 15) that "transmission is as essential as discovery," and in this attitude of mind one might well ask what had come down to the tenth century as a heritage of psychiatric knowledge. Our ignorance of this heritage, historically speaking, is appalling.

Friedreich who has almost alone attempted a complete history of psychiatry has hardly done more than illumine this period with a wax taper.

It is highly important to recall however that our notation by centuries is highly artificial. After the fall of the Roman Empire the event that interests this discussion the most was the rise of the Caliphate, cemented by the fanatical leadership of Mohammed, for as Singer notes, the ancient Greek learning, or rather the documentary casing in which it was enshrined, was better preserved (by the Arabs) than were the Latin traditions.

Alexander of Tralles (525-606) was the first original physician since Galen (Sarton), and one might like to start with him—but this pulls us back into the sixth century. We must pass him by notwithstanding his very fascinating contribution to the study of

what Friedreich calls "melancholia."² Paul von Ægina³ (625-690) follows. His works have been translated and may be read in English and French and German. Garrison speaks of Protospa-tharius, a contemporary of Paul of Ægina, who left some original notes on the olfactory nerve.

From now on our path is seen to divide. On the one hand, one can trace a surviving western remnant of which Constantine the African who settled down in Monte Cassino in 1056-1065 and died there in 1087 and who translated most of the Arabic works of the period into Latin represents two cultures. Thus he aided most illustriously in the work of transmission—rather than of discovery. The school of Salerno is the pivotal point of this period. Most of the outlines of general import connected with this 732-1096 A. D. period can be found in Garrison and will not detain us here. The other deals with the rise of what is known as the Mohammedan and Jewish periods. They are of great significance in any history of psychiatry. Mohammed had brought together some national units and a culture horizon of some significance even though religious fanaticism prevented any real systematization of science.

And before we plunge more intimately into this period I wish to quote from Friedreich some psychiatric gossip concerning a few Arabian physicians of this period in which the following are worthy of mention from a psychological point of view:

Gabriel Bakhtischwah became very renowned at the court of Caliph Harun Al Rashid (786-802) because of curing the caliph's concubine of paralysis. He cured her through fright and shame. He had the caliph assemble his entire court and brought the girl into the assembly room. He advanced towards her rapidly and made an attempt as if to raise her skirts. Fright and shame acted so quickly that the girl immediately put down her arms towards her skirts and thus regained the use of her paralyzed arms.

Garrison (IV Ed., p. 135, 1929) tells the interesting story that this physician, Gabriel Batischma, got about \$1500 per annum for bleeding and purging the Commander of the Faithful beside a regular monthly salary of \$2500 and a new year's purse of \$6250. He estimated his total fortune in fees as at \$10,000,000, and on

² German Translation by Puschmann. 2 vols. Vienna, 1878-1879.

³ Paul of Ægina. English, Fr. Adams, Sydenham Society, 1834, 1847; French, René Briau, Paris, 1855; German, Berendes, Janus, 1908-1913 and Brill, Leyden, 1914.

being recalled from banishment to heal Al-Meramon he received \$125,000, which Withington records as the largest fee on record.

Browne in his Arabian Medicine tells us this family of the Bukht-Yishu for six generations and over 250 years (a goodly year age in those days to a generation) remained preeminent in medicine. The physicians of Jundi-Shapur had a very cliquey spirit we gather. The Bagdad court physician however did not have an easy time of it at all times. (See Arabian Nights. Lane, 1859, I, p. 83.)

And Leclerc (p. 100) mentions the fact, omitted by Friedreich, for this cure of the chaste maiden, Gabriel (second Gabriel, son of Georges of the family of Batischma), received the sum of 500,000 drachmas, was taken into the privacy of the caliph's family, and was named chief of his physicians, and he served him 20 years through many vicissitudes, Harun al Rashid having died, El Mamoun took Gabriel on until he died and his son got the job. Gabriel was buried in the convent of St. Serge with honors.

Gabriel encouraged the translators and left six compositions, among them one upon coitus, concerning which one can be quite assured that he earned the opprobrium of many of his confrères of being a "pansexualist," much as Freud has to stand the repetition compulsion (stupid continuity) of the present day for his sincere investigations of the sexual instinct.

That the attention of the caliphs had been attracted to the care of the mentally ill and that it was a subject of conference with their physicians might be gleaned from the following anecdote:

Baktiswah the fourth lived with Caliph Mottawakeel, whom he served as physician, and was very intimate with him. Once as he sat alongside the caliph on the ottoman, the caliph played with the sleeve of the physician's robe until finally there was a tear in it. During this time they were speaking of the psychotic. "But when do you say it is necessary to lock up and bind the insane?" asked the caliph. "One of the surest signs," said the physician, "is when a lunatic tears the sleeve of his physician's robe." The caliph was quite amused at this incident.

Apropos of this note *re* the son of Gabriel of the robe-plucking witticism, Leclerc tells us that he lived in great luxury. With him there was no going to Palm Beach in winter or to the North Pole in summer for, so tradition has it, he was able to convert the cold of winter into the warmth of summer and the warmth of summer into the freshness of winter. In fact one might assume that the

initial idea of the thermostatic regulation of a high-grade Manhattan apartment originated with this scion of the Bakhtichou family. At all events, apparently, he had a Rockefeller Institute backing. Harry K. Thaw when he ordered ice for his London apartment in summer seemed to have been following an Arabic precedent. As Solomon is said to have said, "There is nothing new under the sun and here it is!"

Rhazes (860-932) (or Mohammed Ebn Secharjah Abu Bekr Arrasi) recommended chess as a means of curing melancholia. It is doubtful, however, as is said by some, that Rhazes is the originator of chess and put it to this use. At least Busch does not mention him and he seems to give every possible idea on the origin of chess.*

Ibn Sina or Avicenna (980-1037) made himself known at Dschordschan through a cure of the nephew of Caliph Kabus. It was a cure similar to the one given under Erasistratus XI. He also uses an apparatus in the cure of melancholia which is similar to our swing or see-saw. This and related types of movement-shaking therapy existed to the nineteenth century. One wonders if protein shock is but a modern revival? He derives melancholia from a clouded and darkened atmosphere as well as depression out of an ardent love.

The following is obtained from Haller. He merely gives the headings:

Avicenna, *De morbis mentis tractatus*. A Petro Vatterio versus Paris, 1619. Garrison cites the chief Latin editions of Avicenna's Canon. Five volumes were printed in Venice in 1523.

Ali Abbas (Haly Abbas) mentions that young people are prone to a religious melancholia about the time of maturity, possibly the schizophrenia of to-day, or as Morel wrote, "Wrecked on the rock of puberty."

Avenzoar (*d. 1162*) (by Garrison termed the greatest of the Moslem physicians of the Western Caliphate. Averroës (1126-1198) was his pupil)* relates an unusual story of a case of melancholia which was brought on by drinking stagnant water. He criticizes the men who treat mental disturbances with cautery.

* Konning: *Trois traités d'anatomie arabe*. Leyden, 1903, Including works of Rhazes, Haly Abbas and Avicenna.

* See study by Renan: *Averroës et l'Averroïsme*, 1852.

It is here (Friedreich) that we get the first trace of the use of cautery for treatment of mental diseases by the Arabian authors.

This is all that Friedreich has to say upon the general subject of these Moslem physicians, admittedly but a small fragment of what ultimately will be forthcoming as more advanced scholarship will enter into the preserved records. As an amateur however I would dare go a little more deeply into this chapter so briefly dealt with by Friedreich.

So we will retrace our steps a bit having placed at the reader's disposal Friedreich's chapter with supplementary notes, not in Friedreich, and see what an amateur may glean of this medieval Arabic psychiatry. It should interest us greatly since it is fairly well established (see Neuburger) that the mentally ill were taken care of in special hospitals and were treated as sick individuals and not as strange outlandish outcasts and criminals as seems to have been the custom in the more Christian western countries. When it comes to "fanaticism" contrasts one suspects that the Mohammedian variety did better by the psychotic than did the Christian brand in these ancient days. "Fanaticism" as a term however is redolent with the idea of propaganda and having just passed through an orgy of propaganda with governmental subsidized lying as its chief accomplishment the student of psychiatry is quite ready to discount a lot of the rannygazoo talked about "fanaticism."

Continuing to crib from Sarton we learn that the first half of the tenth century was one of comparative rest. The marked onrush of Islam in the previous century had begun to slow up a bit. Mankind, in the mass, goes forward as a sinusoidal curve moving steadily upward, with its slackings and pushes. New knowledge only destroys vested prejudices and sacred traditions and only men of genius seem to accomplish this. The timid of the masses only brace up and try to resist the onward movement. (See Friedreich to Freud in the psychological sciences of the twentieth century.) Science as Sarton says is always revolutionary and orthodoxy. In the vernacular, "You can't keep a good man down."

The second half of the tenth century sees an awakening along many lines. Russia became Christian. Constantine VII collected all of the existing knowledge in encyclopedic works. Gerbert at Rheims was an outstanding philosophic light and became pope. Spain gradually took over the Israelitic culture of Babylon at

Cordova. A knowledge of the "Keys of the Sciences," the "Brethren of Purity" and the "Fihrist" for the study of western civilization are essential. Astrology and alchemy still reigns. Moslem physicians are still predominant. Bagdad established hospitals (979). The way was being prepared for Avicenna. The medicine of Moslem Spain became a rival of that across the Mediterranean. Sarton suggests that the birth of the school of Salerno was due to Donnolo, a Jewish physician, or others like him who flourished in southern Italy.

Medical efforts are never interrupted anywhere,^{*} Sarton tells us, and in spite of the mass of endless repetitions of nonsense there runs through all medical history, as with almost anything else, the tiny trickle of new and pregnant ideas, which swells with the centuries, continues as a part of the solid structure and the excrescences are rolled up with the mass of nonsense and constitute the bulk of the lay medicine for centuries. The healthy laudable pus of the Galenic era was taught me as late as 1890 and the conflict between what I was learning with Prudden in bacteriology and my charming but antique professor of surgery gave me actually a recurring headache throughout the surgical hour.

As is well known, the Arabic culture from 622-1258 was by no means a backward one. Bagdad, which fell in 1258 (Mongolian invasion. Its Golden Age 750-850), was an important center of culture and civilization and the Arabs travelled often and afar, hence the extension in geography of these times—if not astronomy. The student of psychiatry of this period has an important task in attempting to weed out.

It must not be forgotten, as Garrison points out, that the Saracens not only preserved a great deal of Greek medicine but they invented algebra, and did noteworthy deeds in chemistry and geology, and as Wolfson[†] demonstrates, the Jewish philosophers of this period did an enormous amount of codification and amplification of the Aristotelian categories. My limitations in the knowledge of Hebrew and Arabic make it but poor pedantry to go further into this phase.

* Sarton: Vol. I, p. 742.

† Wolfson: Classification of Sciences in Medieval Jewish Philosophy. Hebrew Union College Jubilee Volume, Cincinnati, 1925.

But especially interesting so far as human comfort is concerned one finds that the use of window glass, street lamps, cultivated fruits, stringed instruments, and the making of washable undergarments came in during this development of culture of the eleventh and twelfth centuries.*

One hears somewhat of pharmacoanalysis at the present day and in the Vienna Clinic the experimental use of ether narcosis as a means of uncovering unconscious material has been advantageously practised. In this connection one cannot but recall the ancient practices of the Bacchantes, the use of wine in religious ceremonials and the related release of unconscious material and its appraisal as of "divine origin."

A not uncurious note along related lines is told of one of the Persian physicians of the sixth century. Harets, by name a great favorite of Chrosroës. It is told that an Arab about to go on a journey left his wife in the care of a brother. The brother became so enamored, and, repressing his feelings, fell sick. Harets was called, and ordered wine. When the patient came under the influence of the wine he began to recite poetry and little by little made it quite evident what he was repressing so that his entourage became quite aware of his passion. The brother returning divorced his wife and would give her to the sick swain. But he refused and died of weakness.

The Bakhtichow tradition was followed by the Mésué and his sons; at the school of Gundisapor, Jean stands out as of some eminence. His father was pharmacist in the hospital. Gabriel the chief seeing his pharmacist in love with a slave of Daoud, son of Serapin, a colleague in the hospital, he bought her for 800 drachmas and thus permitted his pharmacist to marry her. Jean was one of the sons of this mating. For 30 years he held his job while Gabriel lost his and the pharmacist went to Bagdad to practice medicine—where he flourished, even over the more highly favored Gabriel, and received a pension of 600 drachmas a month and living for five servants.

Browne gives three main sources for one who would study the medicine of this Arabian period: (1) The *Fihrist*, or Index; (2) alQifti's (*el Kifti*) History of Philosophers, and (3) Ibu Abi

* From LeClerc: Vol. 1, p. 28.

Usaybias's (*Ibu Abi Oseibia*) Classes of Physicians. *Fontes relationum de classibus medicorum.*⁹ He tells the amateur he can glean somewhat of these through the German and French works of Wenrich, Wüstenfeld, LeClerc, Bröckelmann and others. Haeser offers considerable material for the limited linguistic student. For the literary minded, Hammer-Purgstall, *Literaturgeschichte der Araber von ihrem Beginnen bis zum zwölften Jahrhundert* der Hidschert. Wien, 1850-1851, 8.

At some future time I hope to deal more in detail with this Arabian material, but close with apologies for this rambling discussion.

⁹ See in greater detail in Haeser: Vol. 1, p. 600.

REPORT OF SIMULTANEOUS OCCURRENCE OF PSYCHOSIS IN ALL THE MEMBERS OF A FAMILY GROUP.

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FOSTER LANE VIBBER, M. D.,
Medfield State Hospital Harding, Mass.

Late one evening three people were brought to the hospital for admission for a period of ten days' observation. The three were members of a Portuguese family and were the father, Manuel, age 34; the mother, Stella, age 32; and Albert, the son, age eight. They were accompanied by the police who gave the story that the group had been taken from the home of Stella's father, Jesse, which house they had been doing their best to demolish.

They were very much excited when interviewed in the hospital office. They all carried crucifixes and seemed to be in a state of religious ecstasy. Stella and Albert were pointing out God, the Christ and the Virgin Mary on the walls and ceiling, while Manuel was interjecting, "Praise the Father!" "I love our Father!" and kneeling to pray with an expression of extreme ecstasy. The mother and father were admitted to the hospital, while the son, because of his youth, was returned to the care of his grandfather, Jesse.

The following night the police brought in Joseph who had for the past six years been a boarder at the home of Stella and Manuel. The police had taken him in a fairly successful attempt on his part to demolish the house owned by Jesse. On admission he was seen to be an old man, covered with soot, and very much excited. He claimed that he could see devils that were troubling him and that he had wrecked the home of Stella's father in an attempt to combat them.

The cases were investigated by the social service and the following is a composite account of the findings.

Stella and Manuel had known each other in St. Michael's in the Azores. Manuel preceded his wife to be to this country by a year, she coming at a later date with her parents. Stella and Manuel were married and had two children, Albert and Isabelle. They had always been very religious, holding home services between the

times that church was attended, but when their daughter Isabelle died rather suddenly, at the age of six months, they became much more religious. In the home devotions the whole family and the boarder Joseph took part. At about the time of the death of the daughter, Stella's father, who was a next door neighbor, received a head injury and became psychotic. He was sent to a hospital and other relatives insisted that he have the services of a "curist," or better known as a "witch doctor"—a person supposed to have special religious powers. The one consulted instructed them to get a lock of hair from patient's left temple and a piece of his shirt and to smoke these in a manner given, with incantations. This was done and the patient promptly got well and was discharged from the mental hospital. This seems to have fixed the powers of the curist in the mind of the family and of all the relatives. A second curist was consulted often by the family of Stella and Manuel, in the years following the death of their daughter Isabelle. The curist treated them for pains of different types—thus Manuel would have a pain in his back and then Stella and Albert would have pains of like character in their backs. The curist would give each a belt to wear and say a few words, whereupon the pain would vanish.

After the return of Stella's father, Jesse, from the hospital he had a disagreement with his son-in-law Manuel about some trivial matters and as a result the families had not spoken for years.

In the meantime the family of Manuel and Stella continued their religious services, consulting from time to time the curist. A short time before the onset of the psychosis the curist told them that their trouble was caused by the spirit of the dead daughter of the boarder Joseph entering into their heads. Weighed down with this trouble Manuel stopped work and the family group (Manuel, Stella, Albert and Joseph) entered a period of fasting and prayer that lasted for two or three days. During this period Joseph dreamed that God had had in reality two sons and that he, Joseph, was the second son or the Second Messiah. He told the others of the dream but did not believe it. The other members of the family dreamed of Christ, the Virgin Mary and of Isabelle, the dead daughter of Stella and Manuel.

On the morning of the day of their hospitalization the son Albert, age eight, began to hear the voice of his dead sister giving

him direct communications from God. God told him several things: First, that Joseph's dream of being the Second Messiah was true, that God had in reality had two sons and that Joseph was the second. Second, that it was not good to quarrel with Jesse, his grandfather. Then God, through the medium of the dead daughter Isabelle, gave to Albert specific directions as to how to go about the making of peace between the families. Albert claimed to hear this as an actual voice, and although the others listened and heard nothing they did not doubt the actuality of what Albert told them. As directed the family and boarder went in the afternoon to the house of Jesse. They went in a procession with Albert leading, each bearing a crucifix and various images of religious significance and all singing hymns and praying as they went. At Jesse's house no one was home, but they entered and set up scenes of religious significance on the tables with the images that they had brought with them. They continued to sing and pray until Jesse and his family returned. When Jesse found his company he was not pleasantly surprised and requested that they leave. In the meantime Albert got into trouble with one of the children of Jesse's family and a struggle ensued. Albert was getting the worst of the affair when suddenly he cried out that a spirit (evidently that of the dead daughter of the boarder Joseph) was coming from the wall and attacking him. He pointed to a place in the wall and although the father, Manuel, could see nothing he rushed to the wall and struck the spot indicated with his fist, whereupon Albert pointed to another spot. Among the articles of religious significance brought with them were sharpened files with deer feet as handles and Manuel, Stella and Joseph took these and attacked madly the different points of the wall as pointed out by Albert, although they saw nothing.

Jesse, seeing his house in a good way to being demolished, ran to the police station and returned with police officers who ordered the visitors to leave. They steadfastly refused to do this unless they were told to do so by God. The police finally took Stella, Manuel and Albert because they were active, praying and singing and left Joseph, who was quiet, to return to his home. The next day Jesse feeling sorry for Joseph in that he was left alone asked him to come and stay at his house, giving him a room by himself

to sleep in. In the meantime Albert had been returned to the care of his grandfather Jesse and he was seen to talk considerably to Joseph.

That night the family of Jesse was awakened by a great noise and found Joseph in a good way to finishing the destruction of the house. He had thrown all movable things against the wall through the doors and windows. He had picked up the stove filled with hot coals and thrown it through the wall, covering the floor with red hot coals, filling the house with smoke from the smoldering. He said that he was chasing the fiery-eyed dog demons that were after him, the Second Messiah. Again Jesse went to the police station and the police took Joseph to the hospital.

THE CLINICAL COURSE OF THE FOUR CASES.

Albert, age eight, was not admitted to the hospital because of his tender age. While at the hospital he was hallucinated in both auditory and visual fields, seeing and hearing God and his dead sister Isabelle. He was returned to the care of his grandfather Jesse, but after the affair of Joseph he was placed by the social service in the family of a trained nurse. He evidently did not see or hear anything further after the first two days, but strongly protested the actuality of his experience. He was finally returned to the care of his grandfather Jesse. Diagnosis—Hysteria abetted by fasting.

Stella, age 32, on admission was much overactive, was praying and singing. She claimed to see God and the dead daughter Isabelle and to hear them talking to her. She was wildly happy in a religious ecstasy. She was placed in constant baths and stayed there for days. She then began to show periods when she seemed normal except when religion was mentioned when she would say, "Love our Father," "Want to be with our Father." I. Q. 55. When presented at staff she showed mannerisms, stiffening out in chair, arms and legs akimbo, face grimacing and eyes looking cross-eyed. Staff disagreement as to diagnosis, left as undiagnosed psychosis after consideration of manic, catatonic and psychosis with mental deficiency. Patient continued in hospital and was removed for a time to a disturbed ward when she struck several old ladies. She gradually became quiet and after two months she was ready to go home.

Manuel, age 34, on admission denied having seen or heard God. He was however definitely overactive, prayed, stating that he loved our Father and wished only to spend the rest of his life with his wife and son praying, and to live on the crumbs that the priest did not eat. He smiled in state of religious ecstasy and asked repeatedly to be taken to the church where he could pray. I. Q. 65. Diagnosed as case of psychosis with mental deficiency. Continued in hospital and has on whole shown improvement, although from time to time refuses to eat for a day or two, saying that he will not eat unless told to do so by God. Period of hospitalization now over two months.

Joseph, age 60, on admission was much excited and not able to speak very good English. Stated rather brokenly that he was the Second Messiah and that the devils had come to him as they had to the First Messiah—that they were as dogs with fiery eyes and God had told him to chase them away—to catch them, but not to kill them. He went quietly to the ward. On admission, physical examination was negative. Early in the morning the patient became violently disturbed, striking his head, hands and feet against the walls and grating. Before he had been gotten to he had barricaded the door by placing the bed against it and placing his feet against the bed and his head against the opposite wall. The door was opened with great difficulty. Interpreter next morning obtained the story that God had appeared to him and told him that the devils were coming and that he had chased them into the walls and had barricaded the door to keep all the rest of them out. During the time that the patient's wounds were dressed he showed no sign of pain, sat quietly, but repeated over and over again that he was the Second Messiah, and his face assumed the expression of extreme happiness. In the afternoon he again became violently disturbed and was placed in bed-sheet restraint, whereupon he took to chewing his lips and tongue. He took quantities of eggnog by mouth, but threw it up and gargled it in his throat. He continued overactive, thrashing about, talking of devils and the Second Messiah. The following morning he showed temperature and signs of pneumonia in both lungs. Died noon of same day without any change in his mental condition. Mental diagnosis, manic. Physical diagnosis, death due to bronchopneumonia secondary to manic excitement. Physical component checked at autopsy. The patient insisted happily to the last that he was the Second Messiah and that the devils were after him.

This report is made because it is believed of interest in mode of onset and similarity of thought-content in the different cases. The analysis suggests itself that the religious atmosphere, the statement of the curist regarding the haunting by the spirit of Joseph's dead daughter, the fasting, the development of hysterical manifestations in the son Albert with their acceptance by his parents who are naturally superstitious and low grade. Finally Joseph's dream of being the Second Messiah which he believed so readily when it was told to him by Albert as coming from God via the dead sister Isabelle. The degree of the mania sufficient to cause death, the degree of the "take" of the suggestion may be accounted for by the assumption that the dream expressed a latent personality craving that would make a suggestion of its truth highly acceptable.

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Proceedings of Societies.

THE AMERICAN PSYCHIATRIC ASSOCIATION

PROCEEDINGS EIGHTY-SIXTH ANNUAL MEETING.

WASHINGTON, D. C., MAY 6-9, 1930.

TUESDAY MORNING SESSION

MAY 6, 1930

The eighty-sixth annual meeting of The American Psychiatric Association convened in the small ballroom of the Hotel Willard, Washington, D. C., at ten-five o'clock, the President, Dr. Earl D. Bond, presiding.

PRESIDENT BOND.—The eighty-sixth annual meeting of The American Psychiatric Society is open.

When the Committee on Program was considering some one to welcome us to Washington, any uncertainty was removed when I suggested a friend of mine, a member of the Society of Friends, a former trustee of a mental hospital, who had given up his work, at great business and personal sacrifices at Philadelphia, to come to Washington to head a characteristically federal bureau, that of Indian Affairs. It is a great pleasure to me to be able to call upon the Honorable Charles J. Rhoads, Commissioner of Indian Affairs, to welcome us to this city.

HON. CHARLES J. RHOADS.—*Mr. President, Members and Guests of The American Psychiatric Association:* I feel it is a very great honor to welcome this group to Washington, and speaking from the layman's point of view, we are not only very glad to greet so distinguished a company, but we also look forward eagerly to the result of your deliberations.

Dr. Samuel Johnson once observed that, "every man is a rascal as soon as he is sick," and you are slowly teaching us this truth. We lay people look to you to relieve us from the burdens of neuroses and fear and make us honest men again.

I would like to pass on to you a wish once given me by an old Indian: "May the great spirit permit your moccasins to walk in many snows." And I would add: "May your footsteps melt away the snows of neuroses and fear that keep us from reality." Again, I extend the greetings of the city and the government to this distinguished audience.

PRESIDENT BOND.—We should like to hear from the Committee on Arrangements, Dr. Woolley.

DR. HERBERT C. WOOLLEY.—*Mr. President, Members of the Association:* I think the Committee on Arrangements has very little to say except to welcome the Association to Washington and to express our regrets that due to circumstances, we have been unable to do more for you than we had planned. The plans of the entertainment features are all listed on page 7 of the printed program. There are a number of the members of the Association and guests who have not registered yet and we would like to have you register today, if possible.

Dr. Woolley made several announcements relating to entertainment features.

PRESIDENT BOND.—We have to thank the Committee on Arrangements for the very difficult undertaking which they have carried through. I do not see the Chairman of the Committee on Program in the room. The Program Committee is probably too busy to report. It ought to be mentioned that when a program committee has a small program to arrange, as it did this year, its difficulties are multiplied. The Program Committee has had ten times as hard a thing to do this year than if it were free to accept and invite papers as is the custom in most annual meetings.

I will call for the report of the Council.

SECRETARY CHENEY.—The Council convened at three p. m. Monday, May 5, 1930, the President calling the meeting to order.

The first order of business was the reading by the Secretary of the following report of the Executive Committee:

"Upon call of the President, the Executive Committee met at the Hotel Biltmore, New York City, November 14, 1929. The entire membership was present and Dr. Lawson G. Lowrey, Chairman of the Committee on Program, and Dr. Edward N. Brush, Editor of THE AMERICAN JOURNAL OF PSYCHIATRY, met with the committee.

"The arrangements for the sessions of the meeting in Washington in May were discussed and it was decided that in keeping with the plans of the International Congress, no formal afternoon sessions would be held. It was suggested that if possible, one scientific paper might be presented Tuesday morning following the President's address.

"The matter of authorizing the Committee on Relations with Social Sciences to arrange for a colloquium on undergraduate medical education, which matter had been presented to the President for action by the Executive Committee, was discussed, and it was voted that in view of the limited time available for calling a colloquium this year, and of prospects of another organization making a survey of undergraduate medical education, the matter be referred to the full Council at the annual meeting.

"The committee voted to approve paying the expenses of Dr. Winfred Overholser for the Committee on Legal Aspects of Psychiatry in attending the meeting of the American Bar Association.

"In February, in view of the information received from the Committee on Arrangements, that it appeared impossible to raise money in Washington to pay the necessary expenses of the Association meeting, including the President's reception, the Executive Committee by vote by mail authorized the expenditure from the Association funds for the needs of the Committee on Arrangements of an amount not to exceed \$2000 and preferably to be kept within \$1500.

"The Executive Committee on request of the Chairman of the Committee on Nursing, authorized the payment of the necessary expense in preparing and sending out a questionnaire by the Committee on Nursing.

"In February the Chairman of the Committee on Legal Aspects of Psychiatry requested consideration of authorizing Dr. Winfred Overholser or Dr. Karl Menninger, or both, to attend at the expense of the Association a conference in Chicago of the Committee on Psychiatric Jurisprudence of the American Bar Association, the Committee on Legal Aspects of Psychiatry of this Association and a Committee of the American Medical Association. The Executive Committee voted to authorize the necessary expenses for Dr. Menninger in attending this meeting."

The Council voted to accept the report of the Executive Committee as read.

The Secretary presented a list of three applicants for Fellowship who were presented and accepted by the Association last year, as follows:

Ferd DeForrest Streeter, State Hospital, Rochester, N. Y.; H. G. Mehrten, Stanford University Hospital, San Francisco, Cal.; Malcolm Hodge Yeaman, U. S. Veterans Hospital, Gulfport, Miss.

The Council voted to recommend the election of these applicants for Fellowship.

The Secretary then brought before the Council a list of sixty-one applicants for membership, whose names were published in the JOURNAL this year, as follows:

Earl H. Adams, Blythwood Sanatorium, Greenwich, Conn.; Ira M. Altshuler, 567 Fisher Bldg., Detroit, Mich.; George Wm. Anderson, 63 Keeewatin Ave., Toronto, Ont.; Grace Baker, Johns Hopkins Hospital, Baltimore, Md.; Wm. Wray Barraclough, 170 St. George St., Toronto, Ont., Canada; Percy B. Battey, Institution for Defective Delinquents, Napanoch, N. Y.; Charles Bernstein, Rome State School, Rome, N. Y.; Rena M. Bigelow, Johns Hopkins Hospital, Baltimore, Md.; Ralph W. Bohn, Gowanda State Hospital, Helmuth, N. Y.; Sara A. Bonnett, 102 East 22nd St., New York, N. Y.; Gordon S. Chalk, Ontario Hospital, London, Ont., Canada; Samuel S. Cottrell, Medfield State Hospital, Harding, Mass.; Wm. Cole Davis, 8 South Morris Ave., Atlantic City, N. J.; Levern David Dick, Provincial Mental Institute, Edmonton, Alberta, Canada; Porter S. Dickinson, Johns Hopkins Hospital, Baltimore, Md.; Sylvester Doggett, Eastern Oklahoma Hospital, Vinita, Okla.; C. St. Clair Drake, State Hospital, Jacksonville, Ill.; Adelbert D. Dye, Gowanda State Hospital, Helmuth, N. Y.; George S. Edmonson, State Hospital, Kankakee, Ill.; Temple Fay, 2025 Walnut St., Philadelphia, Pa.; Drury Leigh Fish, 861 S. State

St., Lincoln, Ill.; Charles P. Fitzpatrick, Provincial Mental Hospital, Panoka, Alberta, Canada; Donald R. Fletcher, Ontario Hospital, Toronto, Canada; Ruth MacL. Franks, Toronto Psychiatric Hospital, Toronto, Canada; Henry B. Gaynor, Polk State School, Polk, Pa.; Charles M. Gilmore, Craig House, Beacon, N. Y.; Clifford Goforth, State Hospital, St. Peter, Minn.; Samuel T. Gordy, Philadelphia Hospital for Mental Diseases, Byberry, Pa.; Thomas K. Gruber, Eloise Hospital, Eloise, Mich.; Edward Guion, Atlantic County Hospital for Mental Diseases, Northfield, N. J.; Forrest M. Harrison, U. S. S. Relief, San Pedro, Cal.; P. L. Hays, Eastern Oklahoma Hospital, Vinita, Okla.; Oscar C. Heyerdale, Rochester State Hospital, Rochester, Minn.; Muriel Ivimey, 104 E. 40th St., New York, N. Y.; Samuel Kahn, Gallinger Hospital, Washington, D. C.; Siegfried E. Katz, Hudson River State Hospital, Poughkeepsie, N. Y.; George W. Kells, Ontario Hospital, Brockville, Ont., Canada; George C. Kidd, Ontario Hospital, Penetangueshene, Ont., Canada; John A. Larson, Johns Hopkins Hospital, Baltimore, Md.; Claude A. McClenahan, Ontario Hospital, Mimico, Ont., Canada; Wilfred McKechnie, State Hospital, St. Peter, Minn.; Howard R. Masters, 212 W. Franklin St., Richmond, Va.; Ernest Menzies, Verdun Protestant Hospital, Montreal, Canada; Florence S. Meredith, 483 Beacon St., Boston, Mass.; H. Whitman Newell, 2810 Kensington Ave., Richmond, Va., Frank J. O'Brien, 215 E. Walnut St., Louisville, Ky.; Magnus C. Peterson, State Hospital, St. Peter, Minn.; Frank H. Redwood, 503 Medical Arts Bldg., Norfolk, Va.; Robert M. Ross, Memorial Hospital, Canton, China; W. K. Ross, Ontario Hospital, Toronto, Canada; Leon J. Saul, Boston Psychopathic Hospital, Boston, Mass.; Louis A. Schwartz, Inst. for Child Guidance, 145 E. 57th St., New York, N. Y.; Alan P. Smith, U. S. V. Hospital, Tuskegee, Alabama; James C. Stewart, State Hospital, Alton, Ill.; Charles S. Tennant, Ontario Hospital, London, Ont., Canada; Jean M. Archibald Thompson, Vassar College, Poughkeepsie, N. Y.; Rutledge C. Tompkins, State Coloney and Training School, Alexandria, La.; Philip S. Waters, 861 S. State St., Lincoln, Ill.; J. J. Williams, Ontario Hospital, Hamilton, Ont., Canada; O. H. Wolner, State Hospital, St. Peter, Minn.; Charles S. Woodall, Fernald State School, Waverley, Mass.

The Council voted to recommend the election of these applicants to membership.

The Secretary then presented sixteen applications for Fellowship received for the first time this year and published in the JOURNAL, as follows:

R. G. Barrick, Psychopathic Hospital, Iowa City, Iowa; Harvey DeJ. Coghill, 3224 Grove Ave., Richmond, Va.; Anna C. Dannemann, St. Elizabeth's Hospital, Washington, D. C.; Wm. A. Gardner, Stone Mountain, Ga.; O. J. Hagebush, Anna State Hospital, Anna, Ill.; Michael Kasak, Milwaukee Hospital for Insane, Wauwatosa, Wis.; Solomen Katzenelbogen, 1804 Eutaw Pl., Baltimore, Md.; G. Stanley King, Inst. for Child Guidance, 145 E. 57th St., New York, N. Y.; Bertram D. Lewin, 31 West 11th St., New York, N. Y.; Emil Z. Levitin, 616 Jefferson Bldg., Peoria, Ill.; Benjamin Franklin Smith State Asylum, Wilmar, Minn.; James H. Wall, Bloomingdale Hospital, White Plains, N. Y.; Karl F. E. Wegener, Edward Hines, Jr.

Hospital, Hines, Ill.; Andrew H. Woods, Psychopathic Hospital, Iowa City, Iowa; George A. Wright, Southwestern State Hospital, Marion, Virginia; Wm. W. Young, 478 Peach Tree St., N. E., Atlanta, Georgia.

The Council recommended that these applications be received by the Association and brought up for final action in 1931.

The Secretary presented the names of the following Fellows who because of their active membership and fellowship in the Association for a period of thirty years are eligible for election as Life Members:

Allen Ross Diefendorf, New Haven, Conn.; Alfred T. Grundy, Baltimore, Md.; John H. Nichols, Tewksbury, Mass.

The Council approved of their election as Life Members.

The Secretary presented the name of Mr. Barry C. Smith, The Commonwealth Fund, 579 Madison Ave., New York, N. Y. for Honorary Membership, sponsored by six Fellows. The Council recommended this election.

The Secretary presented the application of Margaret Taylor Ross, Kerr Memorial Hospital, Canton, China, for Corresponding Membership. The Council recommended this election.

The Secretary presented the application of George A. Zeller, Peoria State Hospital, Peoria, Illinois, for reinstatement to membership. The Council recommended this reinstatement.

The Secretary presented the names of forty-two Members of the Association for transfer to Fellowship, all of these members having been in good standing, and having been members for not less than three years. The list follows:

Edward B. Allen, White Plains, N. Y.; Henry E. Austin, Philadelphia, Pa.; Clarence W. Barth, Newburgh, N. Y.; Orland R. Blair, Clarks Summit, Pa.; Katherine G. Brockman, Kings Park, N. Y.; Walter Bruetsch, Indianapolis, Ind.; Robert R. Dieterle, Washington, D. C.; Wilson K. Dyer, Peoria, Ill.; Joseph P. Eidson, New York, N. Y.; F. J. Ernest, Portland, Oregon; J. Ernest Fox, Lakeland, Ky.; S. Edward Fretz, Whitestone, N. Y.; Gerald S. Glassco, Hamilton, Ont.; W. W. Graves, St. Louis, Mo.; Daniel P. Griffin, Bridgeport, Conn.; Percy G. Hamlin, Philadelphia, Pa.; Henry H. Hart, New York, N. Y.; Leo Kanner, Baltimore, Md.; Robert H. Leece, Palo Alto, Cal.; Howard D. McIntyre, Cincinnati, Ohio; LeRoy Maeder, Philadelphia, Pa.; William Malamud, Iowa City, Iowa; Ward W. Millias, Rome, N. Y.; Henry S. Mitchell, Relay, Md.; Hugh A. McKay, New Toronto, Ont., Canada; Frederick L. Patry, Baltimore, Md.; Daniel Plouffe, Montreal, Canada; V. H. Podstate, Pleasanton, Cal.; M. B. Pontius, Evansville, Ind.; Curtis T. Prout, Detroit, Mich.; Oscar J. Raeder, Boston, Mass.; Dan S. Renner, Skillman, N. J.; Harry R. Reynolds, Philadelphia, Pa.; Paul H. Salmond, Mansfield Depot, Conn.; Albert B. Siewers, Syracuse, N. Y.; Lauren H. Smith, Philadelphia, Pa.; Stewart B. Sniffen, Chicago, Ill.; George S. Stevenson, New York, N. Y.; James W. Vernon, Morgan-
ton, N. C.; Alphonse R. Vonderahe, Cincinnati, Ohio; F. S. Vrooman, London, Ontario, Canada; Kenneth Weber, Lima, Ohio.

The Council voted to approve the transfer of these members to Fellowship.

The Secretary presented the following names of Fellows and Members in good standing who have tendered their resignation:

Sherman Brown, Hudson River State Hospital, Poughkeepsie, N. Y.; Albert W. Ferris, 111 N. Walnut St., East Orange, N. J.; William McDonald, Marion, Mass.; C. E. Sisson, Napa State Hospital, Imola, Calif.; E. M. Somers, Sharon, Conn.

The Council recommended that these resignations be accepted, with regret.

The Secretary presented the names of fourteen Members and twelve Fellows who remain three years in arrears in dues after three bills and a special letter have been sent to each this year.

The Council recommended that these Fellows and Members be dropped from the Association in accordance with the Constitution.

The Council voted to hold the 1931 meeting of the Association in Toronto, Canada, in the first week in June, this date subject to conference with other associations to avoid conflict.

The advisability of having the Council pass upon recommendations to be made to the Association by the various association committees was discussed and it was voted to call a meeting of the Council for Tuesday afternoon at three o'clock, and to invite the chairman or other available representatives of the committees to be present and discuss the recommendations that the respective committees planned to present to the Association in their reports.

Dr. Brush called attention to the reprinting by a proprietary firm of a paper presented by Dr. English at the last annual meeting and published in the JOURNAL, such reprinting being without the consent of Dr. English or of the JOURNAL. Dr. Brush recommended that the Secretary be directed to apply for a copyright for the JOURNAL. This recommendation was approved by the Council.

This report of the Council is submitted at this time for action.

PRESIDENT BOND.—You have heard the report of the Council. I will entertain a motion for its acceptance.

DR. ENGLISH.—I so move.

The motion was seconded and carried.

PRESIDENT BOND.—The condensed report of the Secretary will be presented.

REPORT OF SECRETARY, 1929-30.

The following is a statement of membership of The American Psychiatric Association as of April 30, 1930:

HONORARY MEMBERS.

| | |
|----------------------|----|
| Former number | 13 |
| Died | 2 |
| Present number | 11 |

LIFE MEMBERS.

| | |
|-------------------------------|----|
| Former number | 58 |
| Fellows to Life Members | 9 |
| Total | 67 |
| Died | 7 |
| Present number | 60 |

CORRESPONDING MEMBERS.

| | |
|---------------------------------|---|
| Former and present number | 4 |
|---------------------------------|---|

FELLOWS.

| | |
|------------------------------|-----|
| Former number | 872 |
| Elected | 17 |
| Members to Fellows..... | 38 |
| Reinstated | 2 |
| Total | 929 |
| Fellows to Life Members..... | 9 |
| Resigned | 4 |
| Dropped | 21 |
| Died | 7 |
| Total | 41 |
| Present number | 888 |

MEMBERS.

| | |
|-------------------------|-----|
| Former number | 377 |
| Elected | 57 |
| Total | 434 |
| Members to Fellows..... | 38 |
| Resigned | 2 |
| Dropped | 11 |
| Died | 3 |
| Total | 54 |
| Present number | 380 |

TOTAL MEMBERSHIP.

| | |
|--------------------------------------|------|
| Honorary members | 11 |
| Life members | 60 |
| Corresponding members | 4 |
| Fellows | 888 |
| Members | 380 |
| | — |
| Total membership April 30, 1930..... | 1343 |
| Total membership April 30, 1929..... | 1325 |

SECRETARY-TREASURER'S REPORT, 1929-30.

RECEIPTS.

| | |
|--|-------------|
| Balance on hand May 1, 1929..... | \$13,630.29 |
| Receipts from dues, interest and sale of membership lists..... | 10,576.21 |
| Total receipts | \$24,206.50 |

DISBURSEMENTS.

| | |
|--|-------------|
| Subscriptions of membership to AMERICAN JOURNAL OF PSYCHIATRY, stationery, printing, programs and clerical services..... | \$6,717.02 |
| Balance on hand April 30, 1930..... | \$17,489.48 |

Balance deposited as follows:

| | |
|--|-------------|
| New York Committee on Arrangements, Poughkeepsie Savings Bank Act..... | \$2,204.06 |
| Special Interest Account, Poughkeepsie Trust Company..... | 10,455.06 |
| Balance—General Account, Poughkeepsie Trust Company..... | 4,830.36 |
| Total balance | \$17,489.48 |

PRESIDENT BOND.—No action is necessary on the reports of the Secretary and Treasurer. The Treasurer's report will be automatically referred to the auditors.

The report of the Editor of the AMERICAN JOURNAL OF PSYCHIATRY, Dr. Brush.

DR. EDWARD N. BRUSH.—*Mr. President, Ladies and Gentlemen:* I appear before you somewhat under false pretenses perhaps. Some of you, I hope very few, will remember that last year I said that on this occasion it would be my last attempt to bore you with a statement of what the JOURNAL had been doing or trying to do.

In November last, I met the Executive Committee with the hope of arranging with it to turn over my duties at the end of the present volume to somebody who would do it very much better. To my intense disgust, the Executive Committee refused to listen to me and said that I must hang on for

another year. So that this is not my last appearance, but next year will be positively my last appearance as Editor of the JOURNAL.

The JOURNAL has done fairly well this year. We are printing 2000 copies. Our cash surplus is \$6596 as of the end of the year, April 30, 1930.

As many of you know, the JOURNAL has perhaps stepped outside its legitimate field, although we have felt it was a proper journalistic effort, and with the support and approval of the President, sent a questionnaire to various hospitals throughout the country. We have taken the list of all institutions, public and private, some 700 in number from the Directory of the American Medical Association, and to each of these we have sent this questionnaire. We have received so far a gratifying number of returns and these have been tabulated, and if the Program Committee or the President can give us an opportunity during the meeting, I shall be glad to lay before you the results of our inquiries thus far. The report is not completed, but it is of sufficient interest, I think, to lay before you at this time. They show to us an extremely gratifying interest on the part of the superintendents and medical directors of hospitals and sanatoria in what we are trying to do. I want here to give the credit for the major portion of this work to our associate, Dr. Sullivan. He has carefully tabulated all the returns that have come in so far. He worked very energetically and with meticulous care over the preparation of the questionnaire and personally saw that each address was carefully checked with the address given in the directory. If there are any here who are connected in a superintendent's capacity or as medical director of an institution caring for mental cases who has not received this questionnaire, we shall be very glad to give you one and ask you to return it to us properly filled out.

I have here the financial report of the JOURNAL which I will ask be referred to the Auditing Committee.

PRESIDENT BOND.—Dr. Brush has been explaining how it happened that he got me to send a questionnaire to myself that I wasn't able to answer when I got it.

The financial part of the report of the JOURNAL will be referred to the auditors. The rest needs no action.

I have to appoint a Nominating Committee as this time, and I wish to place on that committee Dr. Henry I. Klopp, of Pennsylvania, Chairman; Dr. Clarence Farrar, of Canada; Dr. T. B. Bass, of Texas.

I also have to appoint a Committee on Resolutions, and I will ask Dr. Abbot to take the chairmanship of that, as he has so often in the past, and I wish also to place on that committee Dr. Geo. Sheldon Adams, of South Dakota, Dr. Franklin G. Ebaugh, of Colorado, and Dr. C. F. Williams, of South Carolina.

Now we have, as we have every year, to realize the losses which the year has brought to us, and I shall ask the audience to stand while the Secretary reads the names of the deceased members.

The audience arose and Secretary Cheney read the following names:

W. F. Beutler, Wauwatosa, Wis., March 9, 1929; Douglas D. Bonnyman, Middletown, N. Y., April 24, 1929; J. Clement Clark, Sykesville, Md., May 28, 1929; George O. Welch, Fergus Falls, Minn., June 1, 1929; John C. Simpson, Washington, D. C., June 6, 1929; Edgar O. Crossman, Washington, D. C., June 21, 1929; James D. Munson, Traverse City, Mich., June 24, 1929; William J. Robinson, London, Ont., September 3, 1929; Fred P. Clark, Stockton, Cal., November 17, 1929; C. Floyd Haviland, New York, N. Y., January 1, 1930; Booth E. Miller, Harrisburg, Pa., January 8, 1930; Benjamin L. Wyman, Birmingham, Ala., January 8, 1930; Homer L. Day, New York, N. Y., January 13, 1930; Chas. E. Atwood, New York, N. Y., February 19, 1930; J. W. Stephenson, Pelham, N. Y., March 8, 1930; Henry D. Allen, Milledgeville, Ga., March 22, 1930; Flavius Parker, Pawling, N. Y., May 2, 1930; Louis B. Trigg, Lakeland, Ky.

PRESIDENT BOND.—The next thing on the program has been timed to an exact ten minutes. I want to reassure you about this before we start. There are many past presidents of the Association to whom I am tied by affection, but when Dr. Owen Copp is in the room, I cannot ask anyone else but Dr. Copp to take the chair. Dr. Copp:

Dr. Owen Copp took the chair.

CHAIRMAN COPP.—It is a great pleasure for me to introduce one who needs no introduction to this audience, Dr. Bond, the President of the Association who will now address you.

President Bond read his address.

CHAIRMAN COPP.—I find myself in quite a dilemma. In order to get this honor of presiding during this address, Dr. Bond imposed this condition, that I should say nothing myself and permit no one else to say anything. Well, in the first place, I haven't been accustomed to receive orders from my co-worker and assistant, Dr. Bond; in the second place, no one expects to give orders in these days and to have them obeyed. But I reasoned further this is a crowded session and no one must take up much time. So I began to feel that it might be reasonable to obey this order from Dr. Bond. Then I knew that whoever knows Dr. Bond and knows his work and has listened to this pioneer and splendid address doesn't need to have anything said. Well, I had about persuaded myself to acquiesce and be obliging, especially to Dr. Bond who has that quality in a great degree, when I received another order. Dr. Brush sends up a note which reads, "Hold the audience." Now Dr. Brush is responsible.

DR. BRUSH.—Dr. Bond, I don't want to appear to be in the position of giving orders to the President, but I should like to have you in the chair. I have a pleasant duty to perform. You see before you a footstool (Fig. 1) which has been in my possession since January, 1918. I have rested my lower limbs upon it when in position number two (Fig. 2), the upper edge

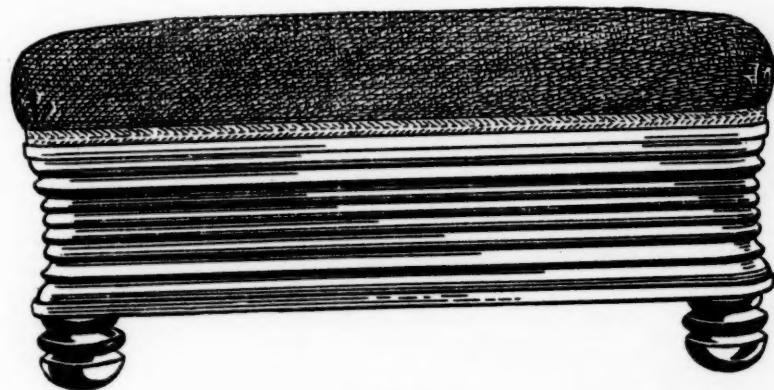


FIG. 1.



FIG. 2.

being next to my chair, and when I felt in an enervated condition I elevated my legs still higher, by placing the stool in position number three (Fig. 3), to facilitate the return flow of blood to my cerebral cortex.

This footstool is unique. I have never seen one like it, and it has a unique history.

Some time, within the last eighty years it was presented by the late Dr. Thomas S. Kirkbride, first Medical Superintendent of the Department for



FIG. 3.

Mental and Nervous Diseases of the Pennsylvania Hospital, to Dr. Isaac Ray, the first Medical Superintendent of Butler Hospital, Providence, R. I.

On the death of Dr. Ray in 1881, the stool was sent to Dr. Kirkbride in whose possession it remained until his death in 1883.

Mrs. Kirkbride, a short time after her husband's death, sent the stool, with its history, to Dr. Charles H. Nichols of the Bloomingdale Hospital, New York.

In March, 1890, Mrs. Nichols, a few months after Dr. Nichols' death, sent the stool to Dr. William W. Godding, Superintendent of the Government Hospital for the Insane, Washington, D. C. Mrs. Nichols, in her

letter, says: "I have today sent you by Adams Express a footstool which has belonged to three distinguished members of *our* specialty and the record must not be broken."

She then recites the history of the stool as given in Mrs. Kirkbride's letter to Dr. Nichols, which unfortunately cannot be found, and says: "I hope you will be glad to have it. You will discover that it can be placed at different angles and is most substantial."

Dr. Godding died in 1899 and in July of that year Mrs. Godding sent the stool to Dr. John B. Chapin, Superintendent of the Department for Mental and Nervous Diseases of the Pennsylvania Hospital in Philadelphia.

In her letter of transmittal Mrs. Godding refers to Mrs. Nichols' letter to Dr. Godding and says of the stool, "When it came to me to decide who should inherit it, I felt I would like to have it go to you, and hope you may derive some comfort from its use."

In January, 1918, it was my sad duty to attend the funeral of my old chief and dear friend, Dr. Chapin, in Canandaigua, N. Y., where he had retired after over fifty-seven years in psychiatric work, and where in 1860 he had joined with Dr. George Cook, in conducting Brigham Hall, an incorporated private institution for mental disorders. From Brigham Hall he went to the superintendence of Willard Hospital.

As I was about to leave for home in the evening after the funeral, one of his sons-in-law, the late Dr. J. Montgomery Mosher, asked me to step into the library where on behalf of Dr. Chapin's son and three daughters, Dr. Mosher asked me to accept this footstool, saying the children felt that their father would like me to have it.

I have since learned that Dr. Chapin had at one time a plan to send the stool to Butler Hospital where it first went to Dr. Ray from Dr. Kirkbride.

There is tacked on the base of the stool a card bearing, in Dr. Chapin's writing, a brief recital of its history, followed by the words, "pass it on, pass it down."

Nothing would be more pleasing to me than to be assured that this injunction of Dr. Chapin's would be carried out. But memories are fallible; families sometimes break up without careful distribution of their effects, and I have felt that there was great danger that the line of descent would some time be broken through someone's unintentional neglect to provide for its disposal.

I have therefore, after seeking counsel among my friends, any one of whom might well be the next recipient of the foot rest, determined that it would be much better if the stool were restored to its starting point, the Department for Mental and Nervous Diseases of the Pennsylvania Hospital in Philadelphia.

It is therefore, Dr. Bond, with very great pleasure that I present, through you, to the Department of the Hospital over which you have so well presided, this footstool to be retained and carefully preserved among the treasures of the hospital, as a memento of the five eminent men in psychiatry in whose possession it has been, Kirkbride, Ray, Nichols, Godding and Chapin, two of whom have been medical heads of the hospital; all of whom have made psychiatric history.

One could very easily indulge in day dreaming over this stool. It is very easy to imagine that Dr. Ray rested his limbs upon it when he took that post-prandial nap, during which he dreamed of the "Ideal Characters of the Officers of a Hospital for the Insane."

You will recall that in his introduction to that most interesting little book, whose title I have just named, he says that he sought one Sunday, as usual, the post-prandial comfort of his easy chair—the gift of a beloved brother in the craft—and took for reading old Fuller's "The Holy and Profane State" and soon became absorbed in the sketches of "The Good Merchant," "The Good Judge," "The Good Physician," but eventually fell asleep. It is quite probable that while he sought ease in this chair given him by a fellow psychiatrist, he also sought to add to his comfort and promote something like a reclining position by using the footstool arranged on an incline to support his legs. Who was the donor of the easy chair; has it also been preserved? Perhaps the footstool and the chair came from the same source, and may some time be brought together. Beside them should be a table with Dr. Ray's book, with its ideal characters outlined, The Good Superintendent; The Good Assistant Physician; The Good Attendant; etc.

Then one might imagine it being used by Dr. Kirkbride into whose possession it came in the last two or three years of his life, semi-reclining by its aid and reminiscing upon the activities of over forty years of hospital work, and recalling the numerous hospital plans upon which his approval had been stamped.

Dr. Godding may have worked over the details of "Two Hard Cases" while relaxing by the aid of its grateful support. I know that Dr. Chapin used it both in his library in Philadelphia, and after he had gone to Canandaigua and I also know that he prized its possession most highly and was interested in its future disposal and preservation. While therefore I am not exactly following his injunction I am, after all, I feel, doing that which will best carry out the spirit of his wish, in turning it over to the hospital from which it first started on its journeys, there to be kept with its history and with other treasures of historical or personal interest that have accumulated in the past.

PRESIDENT BOND. Do not remember that but five distinguished psychiatrists have used this footstool, as Dr. Brush told you. There are six, because the Editor of the JOURNAL OF PSYCHIATRY has owned it for the past 12 years. The footstool will have a fitting location in the Pennsylvania Hospital from which it started, in a museum which is now in course of construction. I accept it to preserve it. Meantime it is a very handy thing to carry about!

President Bond resumed the chair.

PRESIDENT BOND.—We come now to the final event of this morning's program, an unusual event for us, the opportunity to see unusual pictures and to hear from a man whose name we all know. Professor Weygandt at

very considerable inconvenience to himself this morning with his other engagements has agreed to come here to tell us about the modern treatment of mental disorders in German hospitals. I have the great honor to introduce Professor M. Weygandt, Professor of Psychiatry at the University of Hamburg.

The audience arose and applauded.

Professor Weygandt presented his address, supplemented with moving pictures.

PRESIDENT BOND.—In view of the temperature in the room today, we shall not delay except to let me express the thanks of The American Psychiatric Association to Professor Weygandt for this remarkable demonstration.

The meeting adjourned at eleven forty-five o'clock.

WEDNESDAY MORNING SESSION.

MAY 7, 1930.

The meeting convened at nine fifty-five o'clock, President Bond presiding.

PRESIDENT BOND.—Will the meeting please come to order?

We will proceed with the regular order of business but I am going to reverse the first two items of business. I will call first upon the committees. The first report is that of the Committee on Nursing to be presented by Dr. Daniel H. Fuller. Dr. Fuller!

Dr. Fuller read the report of the Committee on Nursing as follows:

The committee has attempted to get a more comprehensive knowledge of the actual operations of the schools of nursing questionnaire. Replies were received from 71 of the 75 schools on the list.

A summary of these replies is of interest.

Two schools had been discontinued, one because of inability to meet the increasing demands for state registration, and one because of inability to get pupils of standard qualifications.

Two hospitals have no regular school for nursing but take affiliating and postgraduate students only.

Two hospitals report two schools each, one for men and another for women.

There remain, therefore, 71 schools in 69 hospitals for our study.

Of these, all employ graduate registered nurses as superintendents of the training school and 58 employ a registered nurse instructress.

One school has two such instructresses and three require three.

All of these schools report women students for 1929, and 46 report either no school for men or no men pupils.

The number of students varied from 2 to 96 for women, and from 1 to 54 for men.

WOMEN.

| | |
|----|------------------------------|
| 3 | schools reported less than 5 |
| 5 | " " from 6 to 10 |
| 11 | " " 11 to 15 |
| 10 | " " 16 to 20 |
| 7 | " " 21 to 25 |
| 8 | " " 26 to 30 |
| 7 | " " 31 to 35 |
| 5 | " " 36 to 50 |
| 7 | " " 51 to 60 |
| 5 | " " 61 to 96 |

MEN.

| | |
|----|------------------------------|
| 11 | schools reported less than 5 |
| 5 | " " from 6 to 10 |
| 2 | " " 11 to 15 |
| 3 | " " 16 to 20 |
| 1 | " " 36 |
| 1 | " " 47 |
| 1 | " " 54 |

The number of graduates from these schools was 436 in 1929. Of these, 19 are known to be men, but there were doubtless more men, as the sexes were not separated in many of the reports.

| | |
|----|--------------------------------|
| 8 | schools graduated none in 1929 |
| 1 | " " 1 in 1929 |
| 8 | " " 2 in 1929 |
| 10 | " " 5 in 1929 |

The largest graduating class numbered 21.

The educational qualification for admission is one year of high school work in the Association's minimum requirements. Thirty-six schools, one-half of those accredited, have made this their standard.

Twenty schools, however, require two years high school.

Three schools require three years.

Ten schools require four years.

Of the last mentioned class requiring a four-year high school course, five of the ten schools are located in southern states, although some other states are raising their standards by an increase of one year annually, until the four years is reached.

The course is three years, in all but two schools. One year of the course is spent in affiliation with a general hospital, in 48 schools.

One school reports no affiliation, nine report from 6 to 11 months, and five from 13 to 18 months.

The Ontario, Canada, schools have no affiliation during the undergraduate period, but graduates may take a post-graduate course and qualify for registration.

Fifty-two hospitals employed graduate registered women nurses on wards for men.

Thirty-seven hospitals employed graduate registered men nurses on wards for men.

Twenty-one hospitals employed no graduate registered women nurses on wards for men.

Thirty-six hospitals employed no graduate registered men nurses on wards for men.

While the schools for men pupils have not been developed so generally as those for women, the committee strongly recommends that effort be made to establish schools for men. The need of graduate registered male nurses in our hospitals is acute and there should be a good field of usefulness for all who are willing to qualify for such positions.

The accommodations for nurses, their living and working conditions show considerable variation, but a growing tendency to improvement.

Sixty schools report separate buildings for nurses' quarters, and 30 of these are exclusively for the nurses, not shared with attendants, or other employees.

Thirty-one report that each nurse has a room to herself. The remainder report not more than two in a room. These are usually students—the graduates and officers having single rooms.

Thirty-one schools have dining rooms for the exclusive use of nurses, or practically so, while 40 are obliged to share the dining room with attendants and other employees.

There appears to be a wide variation in the hours of duty and it was found so difficult to get exact data from the returns that our figures may not be entirely accurate, but probably indicate fairly well the range of practice in these hospitals.

Day duty appears to vary between 7 and 12 hours, for student nurses.

Seven schools appeared to require somewhat less than eight hours per day.

Thirty-nine reported between eight and nine hours inclusive.

Eighteen reported 9½ or 10 hours.

Two reported 10½ or 11 hours.

Two reported 11½ hours.

Two reported 12 hours.

These figures were in some instances reported definitely, but in many cases had to be computed from the "off duty" time allowed, either daily, weekly or monthly.

There were 29 reporting an eight hour day or less.

Night duty hours are longer and varied from 8 to 12 hours.

Eleven hospitals required eight hours.

Ten hospitals required nine hours.

Five hospitals required nine and a half hours.

Eighteen hospitals required 10 hours.

Three hospitals required 10½ hours.

Twenty-five hospitals required from 11 to 12 hours.

There were 36 schools, about one-half of those reporting in which the school exercises were not taken out of "off duty" time. The other 35 reported these exercises as held wholly or in part in "off duty" periods.

There is great variation revealed in the matter of allowance for pupil nurses. This is to be expected because of different local economic conditions, the difficulties in securing qualified candidates, the differing attitudes of legislatures and governing bodies, and other local factors.

For the first-year students the range is from \$5 to \$56 per month.

| | |
|----|--|
| 5 | hospitals grant an allowance of \$10 or less |
| 9 | " " " " from \$11 to \$20 |
| 19 | " " " " \$21 to \$30 |
| 4 | " " " " \$31 to \$40 |
| 20 | " " " " \$41 to \$50 |
| 11 | " " " " \$54 |
| 1 | " " " " \$56 |

The intermediate year is usually that of affiliation and students are paid their allowance by the affiliate school. This is generally less than that paid by the home school. In the third year the allowance is usually larger than the first.

| | |
|----|----------------------------|
| 2 | hospitals pay \$10 or less |
| 9 | " " from \$11 to \$20 |
| 9 | " " " \$21 to \$30 |
| 8 | " " " \$31 to \$40 |
| 15 | " " " \$41 to \$50 |
| 9 | " " " \$51 to \$60 |
| 15 | " " " \$61 to \$70 |
| 1 | " " " \$75 |

No attempt to discuss the curriculum will be made here. All schools maintain a standard much higher than the Association's minimum requirements, in order to meet their state registration.

Some hospitals are giving courses for attendants which raise the standard of personnel and service and which have been the precursor of schools for nurses.

It is most encouraging to note that so many schools are already requiring a full high school education and that several others are soon to follow. One reports that "since we have advanced our standard from one year of high school to only admitting graduates of high schools, it seems we have had more applications."

Another writes: "Since September of 1927 we have had 53 young women enter the School of Nursing and while the State Board requires a minimum of one year high school 70 per cent of these young women are high school graduates, several have had one or two years of college work, and only six have the minimum requirement."

Excellent outlines for nurses' notes, for observation of symptoms, for behavior studies, for case studies, have been submitted by some schools showing thorough and efficient methods of teaching.

Excellent outlines of courses for affiliates, and post graduates have also been submitted.

The committee feels that progress has been made and that each hospital must be a center of education, to demonstrate to the public in general and legislators and doctors in particular the importance of furnishing instructors and teaching facilities for the schools of nursing in our hospitals for mental diseases.

Through sub-committees, conferences have been held with Miss E. J. Taylor, Chairman of the Mental Hygiene Section of the American Nurses Association and with the late Miss Lillian S. Clayton, President of the American Nurses Association.

These leaders in the field of nursing education are keenly appreciative of the value to the nurses of experience and training with mental patients, and to the need also for higher nursing standards in mental hospitals.

There is no doubt that the time is approaching when a study of the individual as well as the disease will be an integral and essential part of the education of both the doctor and nurse. At present this is best accomplished in hospitals for mental diseases.

Your committee believes that it is the duty of this Association, first, to encourage the maintenance of schools of nursing in mental hospitals, which shall be of sufficiently high standards to attract bright and serious-minded pupils with good educational background; second, to encourage the giving of short intensive courses in mental nursing to affiliates from general hospitals of not less than 3 months duration, courses which shall become a valuable and essential part of their training; third, to encourage in mental hospitals the establishment of courses for post-graduates, which will supplement their general training; fourth, to stimulate physicians, heads of general hospitals, boards of trustees, nursing associations, and legislators, to recognize the importance of mental nursing and to provide adequate facilities for the proper teaching of nurses in mental hospitals.

The mental hospitals should furnish such experience and teaching. Many of the educators in the nursing field are persuaded of this and others must yet be convinced.

It is, therefore, the greatest satisfaction to your committee to report that 25 training schools in mental hospitals are taking affiliates from general hospitals, for special courses in the nursing of mental patients. Eleven schools are giving postgraduate courses to graduates of accredited hospitals. Others are planning to institute such courses.

It is clear to your committee that having established an accredited list of schools of nursing in mental hospitals, the Association has assumed an obligation to maintain and improve its standards. It has become evident also that a school's standards cannot be correctly judged from a questionnaire. Much valuable and helpful knowledge has been obtained from these

answers, but the exact knowledge is insufficient to permit of an intelligent classification.

The committee believes, therefore, that the time has come when a field worker should be employed by the Association to personally visit our schools of nursing, for the purpose of advice, guidance and encouragement, and to report her findings and recommendations to the committee. One who is a graduate of a hospital for mental diseases, of broad horizon, thorough knowledge of the nursing field, and wise understanding of the difficulties under which the schools of nursing in mental hospitals are now being conducted, is needed, and your committee believes that such can be found. A salary of \$3000 and travelling expenses would be the minimum required to secure such a worker, and, even \$4000 may be needed.

It is known that the American Nursing Association and the National League for Nursing Education are vitally interested in this subject. It is, therefore, proposed to invite their interest and possibly their cooperation in the suggested survey, with the possibility of sharing the expense, and with the hope of emphasizing the place of mental nursing in the education of the well-trained nurse.

Respectfully submitted,
DANIEL H. FULLER, *Chairman.*

PRESIDENT BOND.—Is there any discussion of this excellent report? The Council in a report which will follow has some recommendations in the matter. Discussion is now in order, however. Another chance will be offered after the Council report.

Is there anyone to present a report from the Committee on Standards and Policies to this meeting? (No response) Is there anyone to present a report for the Committee on Research? (No response) If not, I will call upon Dr. May of the Committee on Statistics to present the report of that committee. Dr. May!

Dr. May read the report of the Committee on Statistics, as follows:

**REPORT OF THE COMMITTEE ON STATISTICS OF THE AMERICAN PSYCHIATRIC
ASSOCIATION, 1930.**

Your committee is pleased to report the gradual improvement that is being made from year to year in the published statistics relating to mental diseases. During the past year, the Federal Census Bureau issued a comprehensive bulletin relating to mental patients in state hospitals for the years 1926 and 1927. This bulletin gives much valuable information concerning the operations of the state hospitals during these two years, and compares results of these years with those shown by previous reports. This bulletin, which marks a decided advance in statistics in our specialty, is the direct outcome of the labors of the Association.

The Federal Census Bureau stands ready to continue its work of making an annual census of patients in state institutions for the insane, feeble-minded, epileptics, and delinquents—provided authorization therefor is made by Congress. A bill providing such authorization is now being considered by the Senate Committee on Commerce. In accordance with a resolution of this Association, passed last year, the chairman of your committee and the secretary of the Association have written to Senator Johnson, Chairman of the Committee on Congress, urging favorable action on this measure. Your committee earnestly hopes that the bill may be passed by Congress, and that the good work of the Federal Census Bureau in the institution field may receive adequate support.

Your committee has continued to cooperate with the National Committee for Mental Hygiene in its work of serving as a clearing house for the collection and distribution of information pertaining to mental hospitals throughout the country. In July last, the National Committee published a comprehensive study entitled "Recent Statistics in Alcoholic Mental Disease," which was made possible by the cooperation of the members of this Association. These special studies made by the National Committee from time to time throw much light on important public questions, and serve to keep the public informed as to the trends in the various types of mental disease.

Your committee would call the attention of the members of the Association to the unsatisfactory classification of institutions made by the American Medical Association in its annual statistical report of hospitals in the United States. Instead of recognizing our state hospitals as hospitals for mental disease, it groups them under the general heading of "Hospitals for Nervous and Mental Diseases." As our state hospitals admit only patients suffering from mental disease, the use of the word "nervous" in the classification used by the Association is inaccurate and misleading. The situation is aggravated because in summaries of the Association's report, institutions for feeble-minded are combined with hospitals for mental disease under the general heading of institutions for "nervous and mental diseases."

Last year, Dr. William T. Shanahan and the chairman of your committee were appointed to represent this Association in the National Conference on Nomenclature of Disease. Considerable correspondence has been carried on between the Secretary of the National Conference and your chairman relative to the place that mental disease will have in the new classification that is being prepared. It was originally proposed to classify each disease, whether physical or mental, both anatomically and etiologically. If this scheme were fully carried out, the classification of mental diseases used by this Association would be done away with and the various mental disorders would appear along with physical disorders in sub-division of etiological and anatomical groups. Your chairman has pointed out the disadvantages that would arise from such merging of physical and mental diseases, and has proposed that the classification of this Association be kept intact.

Your committee recognizes the necessity of revision in the classification of diseases, and is in hearty sympathy with the aim of the National Confer-

ence on Nomenclature of Disease, but it feels that the changes made in classification should not be such as to disturb the work of well organized systems of hospitals such as those represented by this Association.

Your committee would recommend that this Association request the National Conference on Nomenclature of Disease to adopt the classification of mental disease of this Association, and that in the general classification of disease, physical and mental diseases be kept separate.

Respectfully submitted,

JAMES V. MAY, *Chairman*,
ALBERT M. BARRETT, *Vice-Chairman*,
GEORGE H. KIRBY,
FRANKWOOD E. WILLIAMS,
C. MACFIE CAMPBELL,
WALTER L. TREADWAY,
PHYLLIS GREENACRE,
WILLIAM T. SHANAHAN,
E. STANLEY ABBOT,
SANGER BROWN, II.

PRESIDENT BOND.—The report of the Committee on Statistics is now open to discussion. The Council in its report will have something to recommend. If there is no discussion just at the moment, I will call upon the Secretary for the report of the Council which considered committee recommendations yesterday.

SECRETARY CHENEY.—The Council met at 3 p. m., May 6, 1930.

Dr. Fuller, Chairman of the Committee on Nursing, presented a recommendation that a survey be made of the nurse training schools at present accredited by the Association and requested approval of this principle of a survey and of the authorization by the Association for expenditure of funds, if available, or if not available, the authorization of the committee to attempt to obtain necessary funds from other sources.

The Council recommends to the Association that sufficient funds are not available at the present time for such a survey and that no immediate action be taken, with the hope that this survey may be incorporated in a broader survey of hospitals which may later develop.

Dr. May, Chairman of the Committee on Statistics, presented his report and the Council voted to recommend the appointment of the Chairman of the Committee on Statistics as a voting delegate in the Conference on Nomenclature of Disease, with the power to withdraw if the conference does not accept the classification of The American Psychiatric Association as its official classification of mental diseases.

The reports of Dr. Sandy, Chairman of the Committee on Medical Services, and of Dr. Sullivan for the Committee on Relations with Social Sciences, and of Dr. Meyer, Chairman of the Committee on Graduate Education in Psychiatry, were considered. It was voted to give further consideration at a later meeting of the Council to the recommendations of the Committee on Relations with Social Sciences.

The reports of the Committee on Activities of the Neuro-Psychiatric Division of the Veterans' Bureau and the Committee on Psychiatric Social Work were considered. These committees had no recommendations which required action by the Council.

PRESIDENT BOND.—We shall not have better reports presented by the Committees on Nursing and Statistics than have been given this morning to this Association. The recommendations made by the Council about the reports of these two committees are now before you for action; first, the recommendation about the Committee on Nursing. Is there any discussion? Is there a motion?

It was regularly moved, seconded and carried, that the recommendation of the Council as to the Committee on Nursing be adopted.

PRESIDENT BOND.—The Committee on Statistics report is now before you, or rather the recommendation of the Council upon this report. Is there discussion, or a motion?

It was regularly moved, seconded and carried, that the recommendation of the Council as to the report of the Committee on Statistics be adopted.

PRESIDENT BOND.—There are a number of matters of business which the Chair is ready to expedite. In the first place, as to election of members. The members up for action this year have been considered by the Committee on Membership and they have been approved by the Council. The Secretary has distributed printed lists of these members. I am ready to entertain any motion which will expedite this matter.

DR. WM. T. SHANAHAN.—I would move that the Secretary be instructed to cast one ballot for these members.

The motion was seconded and carried.

PRESIDENT BOND.—The Secretary has cast the ballot and the proper action has been taken on these different groups of members.

If there is no unfinished business that cannot be postponed, we will pass on to the report of the Auditors. Is Dr. Curry in the room? Dr. Guthrie, I think, has that report.

DR. L. V. GUTHRIE.—*Mr. Chairman, Ladies and Gentlemen:* We have examined the books, vouchers and accounts of the Secretary-Treasurer and found them to be correct and find the following balance, \$17,489.48. The surplus shown by The Johns Hopkins Press, publishers of the JOURNAL, is \$6596.16

It was regularly moved, seconded and carried, that the report of the Auditors be accepted.

PRESIDENT BOND.—I will call for the report of the Nominating Committee, Dr. Klopp.

DR. HENRY I. KLOPP.—*Mr. President, Members of the Association:* Your Nominating Committee begs leave to suggest the following names for officers for the ensuing year: Dr. W. M. English, President, Ontario, Canada; Dr. William L. Russell, Vice President, White Plains, N. Y.; Dr. Clarence O. Cheney, Secretary-Treasurer, Poughkeepsie, N. Y. Councilors for three years: Dr. Earl D. Bond, Philadelphia, Pa.; Dr. Glenn E. Myers, Los Angeles, Cal.; Dr. Horace G. Ripley, Brattleboro, Vt.; Dr. R. L. Dixon, Wahjamega, Mich. Auditor for three years: Dr. L. V. Guthrie, Huntington, W. Va.

PRESIDENT BOND.—The report of the Nominating Committee is now before you. What is your pleasure?

DR. BROWN.—I move we adopt the report.

The motion was seconded and unanimously carried.

PRESIDENT BOND.—In the matter of new business, I have only to ask a friend of the Association to make a brief statement about the unusual entertainment that Boston offers to visitors this year. Mr. Walter Rapp!

MR. WALTER RAPP.—*Mr. President, Ladies and Gentlemen:* I appreciate the very great privilege your Chairman has accorded me of bringing to you the invitation of Governor Allen, of Massachusetts, to our tercentenary. I don't know whether that is the exact pronunciation of the word, there are so many changes, but it will not interfere. It is really a red letter day for Massachusetts. It is not the first time that I have had the privilege of attending these meetings. In 1916, Governor Foss appointed me as his special representative to your meeting. I have attended every meeting since then except last year when through illness I was deprived of the very great pleasure.

The Commonwealth of Massachusetts invites this Association to Boston. Every town, village and hamlet, is preparing special entertainment for you. The hotel associations have passed a vote that no extra charge will be made. You know the hospitality of Bostonians. We may be rather cold, but when we set out to do a thing, we generally do it royally and well. Our invitation to you to attend some of the exercises where every town, village, hamlet and city will have a special program, which I am sure you will enjoy. Our hospitality is only exceeded by our geniality, and our geniality by our hospitality.

I give you the greetings of his Excellency, the Governor, whose special representative I am and have been since the New Orleans Convention nearly—well, it was 1916, you can figure it up. I am not a very good mathematician. But we will give you a very hearty welcome.

PRESIDENT BOND.—I think there is no new business that needs to come before the Association now, so we are ready for the first scientific paper.

The first paper is "Encephalographic Studies in General Paresis," by Drs. Franklin G. Ebaugh, Henry H. Dixon, Hugh E. Kiene and Kenneth A. Allen, the last three by invitation. This paper will be presented by Dr. Ebaugh of Colorado.

Dr. Ebaugh presented the paper.

PRESIDENT BOND.—Dr. Ebaugh set a good example in getting through ten minutes before the allotted thirty minutes to each speaker. I am sure that Dr. Meyer will want to comment on the work of his pupil, Dr. Adolf Meyer!

Dr. Ebaugh's paper was discussed by Drs. Meyer, Orton, Freeman, Sandelhausen, and Ebaugh.

PRESIDENT BOND.—We turn now to the next paper, "Studies of the Biochemistry of the Brain Blood by Internal Jugular Puncture," by Dr. Abraham Myerson, of Boston.

Dr. Myerson presented his paper.

PRESIDENT BOND.—This paper is open for discussion. Naturally not very many people have the experience which enables them to discuss this novel paper at the moment. I thank Dr. Myerson for his presentation.

The paper was discussed by Dr. Dearborn.

PRESIDENT BOND.—We now turn to the last paper for today, "A Preliminary Report on the Expectation of Life in Mental Disease," to be presented by Dr. Neil A. Dayton and Dr. Carl Doering, of Boston. The paper will be presented by Dr. Dayton.

Dr. Dayton presented the paper.

PRESIDENT BOND.—This paper is open for discussion.

The paper was discussed by Drs. Myerson, Meyer, Gibbs, and Dearborn, and Dr. Dayton in closing.

PRESIDENT BOND.—This concludes the program for this morning. Let me remind you that this evening we are to have two experienced and very unusual speakers. I think it is the tradition of this Association that the annual address is to begin on time, so if the speaker gets there at eight o'clock, as I am sure he will, I think he ought to start speaking at five minutes past.

The meeting adjourned at twelve-fifteen o'clock.

WEDNESDAY EVENING SESSION.

MAY 7, 1930.

A joint session with the International Congress on Mental Hygiene was held in Constitution Hall. Upon invitation of President Bond, the annual address was delivered by Dr. Hornell Hart, Acting Director, Department of Social Economy, Bryn Mawr College. Dr. Hart spoke on "The Family and Fulfillment of Personality." Upon invitation of the International Congress on Mental Hygiene an address on "Mental Hygiene and Education" was delivered by Dr. James R. Angell, President, Yale University. Following these addresses the President's reception was held in the Hotel Willard ballroom, after which there was dancing and refreshments were served.

THURSDAY MORNING SESSION.

MAY 8, 1930.

The meeting convened at nine-fifty o'clock, President Bond presiding.

PRESIDENT BOND.—The meeting will please come to order. We shall arrange to adjourn this meeting promptly at twelve o'clock so as to allow plenty of time to get to the President's reception.

I will call for the report of the first committee, the Committee on Medical Services, the report to be presented by Dr. Sandy.

Dr. Sandy read the report of the Committee on Medical Services as follows:

REPORT OF THE COMMITTEE ON MEDICAL SERVICES.

Hospital administrators need not be reminded that successful treatment of patients, the primary objective of our mental hospitals, depends largely upon the efficiency of the medical services. Obvious factors in a medical service are the personnel, organization, the equipment and methods, and the policies by which they are conducted. The Committee on Medical Services has been in the past profoundly impressed by the importance of these factors as evidenced by the reports of former years and the present committee is in accord with the desire to continue to emphasize the requirements and how they may better be met.

The activities of several other committees of the Association have been closely related to those of the Committee on Medical Services and there has

been of necessity more or less overlapping. The recommendations of the Committee on Standards and Policies have been particularly appropriate and the 1925 report constituted a guide for hospital organization and set ideals to which all have since been striving. The Census of Institutional Service and Staff which is being conducted by the AMERICAN JOURNAL OF PSYCHIATRY is searching in inquiry and will result in the most complete collection of data upon which to base estimates of the mental hospitals and their needs. The findings should be of much assistance to future committees in formulating their recommendations.

At the suggestion of the President, the reports of the committee for the past three years will be briefly summarized. The theme of the report of 1927 was the physician in the mental hospital. Utilizing the results of the questionnaire of the Committee on Standards and Policies with later comparative statistics the continued shortage of physicians in the mental hospitals was discussed. Pointing out that there were in 1927 an insufficient number of approved general hospitals to meet the demands for internship by recent medical graduates, the suggestion was made that some if not many of the large mental hospitals approved by the Association as to standards of medical service (if affiliated with general hospitals for pediatrics and obstetrics) can offer with their large numbers of patients on medical and surgical services, as good, if not better opportunities for well rounded training and practise as some smaller general hospitals approved by the Council of the American Medical Association. The recommendation was again made that the Association conduct surveys to determine which hospitals should be approved, in order that an agreement under such a plan might be brought about with the Council of the American Medical Association as to credit for general internship in mental hospitals. In this way, recent graduates would be afforded opportunities for more adequate training in psychiatry than in medical schools and the mental hospitals would secure the services of a larger number of recent graduates.

The 1928 report continued the consideration of the medical staffs of the mental hospitals the status of which still caused much concern. The improvement in the ratio of physicians to patients was only slight even in those states where substantial salary increases had occurred. While 51 out of 563 registered mental hospitals were accepted by the Council on Medical Education and Hospitals of the American Medical Association for residencies in neuropsychiatry, only one mental hospital, Saint Elizabeth's Hospital, Washington, D. C., had been approved for general internship. This hospital qualified by reason of the strictly medical and surgical division, virtually a separate department and constituting a complete general hospital with the exception of obstetrics and pediatrics which were supplied by definite affiliation based on contract with other institutions in Washington. Such an arrangement was suggestive as a method by which other mental hospitals might meet the general internship situation at the same time promoting materially the welfare of mental patients and appealing more successfully to recent graduates.

In discussing again the importance and value of occupational therapy, the committee expressed the opinion that all persons who come in contact with patients and the whole ward personnel should be expected and encouraged to assist in these activities as part of their duties. Accordingly nurses should more generally receive certain training in occupational therapy as a part of their nursing course in order that they may more effectively carry out the principles on the wards.

The subcommittee on psychiatric social work pointed out the increasing difficulty in securing workers for hospital service owing to the tendency of the schools not to require practical training in hospitals and the growing opportunities for workers in extra institutional activities. The committee felt that social workers as well as psychiatrists obtain the best fundamental experience in hospitals and recommended that this principle be adopted by the schools for psychiatric social work, recognizing, however, that mental hospitals would have to become more adequate as training centers.

The 1929 committee, moved by the inspiring presidential address of Dr. Meyer, discussed the need for more and better trained psychiatrists, with the possibility of postgraduate work forming the basis for credit in the form of a diploma, such as obtains in the United Kingdom in psychological medicine or in the United States in the American College of Surgeons. This section of the report resulted in the appointment of a special committee.

A subcommittee on psychiatric social service again presented some of the problems in this field. No action, however, was taken by the association inasmuch as a request had been received by the Council for a special committee for the consideration of the whole question of psychiatric social service.

The subcommittee on occupational therapy in a brief report commented favorably upon the growing tendency of schools to assign student aides to mental hospitals for a period of practical training on the wards.

The present committee desires at this time to review briefly some further factors in developing an adequate medical service. Although many of the following suggestions may appear obvious and superfluous, yet it is astonishing how often they are neglected or possibly made difficult to establish by reason of budget limitations or other restrictions.

With the rise of living costs and corresponding higher financial returns in the various fields of occupation, salaries have necessarily increased in hospital services. But higher salaries have been disappointing in not attracting more physicians, and vacancies on medical staffs continue to be filled with great difficulty. The entering positions in the services are not yet sufficiently well paid to enable the hospitals to compete with the opportunities outside. The lower positions need to be better paid and they must be accompanied by more adequate quarters, houses or apartments, in order that younger physicians may lead more normal family lives.

But from time to time and in various parts of the United States, political hazards and the menace of sudden loss of position cause unrest and a feeling of uncertainty, especially in the position of superintendent. There should be some method of appointment by which tenure of office may be more effectively stabilized. Whether this be by civil service or otherwise, there should

be a system of promotion whereby a young physician may, through study and industrious application, have an assurance of some degree of advancement and the future possibility of reaching one of the higher positions with commensurate financial return. Where there are well organized central supervisory commissions temporary service in such departments, furthermore, constitutes additional effective training for the appointment to the position of superintendent.

Mere financial return, comfortable quarters and stabilization of the service from tenure of position standpoint, however, are not enough to attract or retain ambitious and well prepared physicians. Modern diagnostic and treatment equipment are necessary; hospital departments with general medical and surgical facilities; libraries with recent authoritative literature including the current medical periodicals, general and special; laboratories for routine work and research; the stimulating effect of an active consulting staff; encouragement of medical society membership and attendance at meetings with participation; the organization of the medical activities with professional leadership on the part of the superintendent; the organization and conducting of approved nurses training schools; the development of extra-institutional activities in the way of clinics; the closer association with the general medical profession, with hospital clinic opportunities for graduates and students, all of these are factors in developing a satisfactory medical service. Members of the medical staff may be further stimulated by the encouragement of study and the development of skill in other specialties than psychiatry, with the incidental promoting of the welfare of the patients and more complete satisfaction of the physicians concerned.

President Orton, in his comprehensive and thought-provoking address, emphasized the need for research in psychiatry and pointed out various avenues through which studies might profitably be directed. The committee is aware that, under present conditions of limited personnel over burdened with hospital routine, intensive research may not be expected of many general mental hospitals. Leadership in research moreover requires special foundations in teaching centers, elaborate equipment, selected patient material, a large staff with time and facilities such as can only be obtained in psychiatric institutes or hospitals. Therefore, such centers are needed in every state, constituting the inspiration, the facilities for postgraduate work of both physicians in the service as a preparation for promotion and those in community practise in order that psychiatric information may be further disseminated; also for the arousing of greater interest in psychiatry among the medical students. Under the direction of such research centers, however, problems may be assigned to, and worked out in, the various general mental hospitals, where there is a wealth of material largely neglected at the present time. For with all the boasted progress in psychiatry and mental hygiene, the recovery rates in average mental hospitals remain about as they have been for years and the preventive efforts fail to reduce to any appreciable degree in most places the increasing demand for hospital accommodations. Included in the already mentioned Census of Institutional Services and Staff are

inquiries in reference to research projects now being conducted in mental hospitals. The compilation of the returns of the census will demonstrate the amount or dearth of research in the various hospitals and will be helpful in suggesting ways and means for further developing such activities.

Space will not permit a discussion of the status of psychiatric educational facilities and methods in the medical schools beyond expressing the belief that decided progress has been made in the past few years. One must question the adequacy of the present system, however, which still apparently fails to interest the average student or impress him sufficiently with the importance of psychiatry to lead him to enter this field eventually. The proposed methods of postgraduate credit for service in mental hospitals, if satisfactory arrangements such as were suggested in 1929 may be made, should tend towards directing graduates into the mental hospital field.

The psychiatrist is in constant difficulty in limiting his field of activities and in deciding whether certain work falls within his field or not. In no relationship is this more apparent than in that between psychology and psychiatry. This particular phase of medical services has been studied by a subcommittee with the following brief suggestions.

It seems that the psychiatrist should welcome the aid which the well-trained psychologist can give him in solving a number of problems of mental disease and defect. There is a well-defined field here where the specialized training of the psychologist should be recognized and where he can be most profitably utilized.

It is well, however, to make the distinction between well-trained psychologists and others who are not so well trained. At least one state has done this in a very satisfactory way by having two positions; one for psychologists and another for psychometrists. If the psychiatrists will make this distinction and regard the psychometrists as technicians while considering the psychologists as very carefully trained and well-qualified persons with scholastic rank comparable to that of physicians certain problems may be solved.

There are many psychological techniques which are not familiar to the average psychiatrist, and where there are many such overlapping branches the psychiatrist obviously cannot be familiar with all such techniques.

The following points are suggested as possible ways in which the psychologist can be of service in work with the mentally sick and mentally defective:

Careful studies might be made of the psychometric development curve in cases of feeble-mindedness. Does the feeble-minded individual progress steadily, or is there an arrest point at about 12 years of age? Are the curves similar for males and females? If the feeble-minded individual ages physically more quickly than the normal individual, is there a deterioration curve comparable to the physical deterioration? Can a more satisfactory type of memory test be devised, and can specific types of memory defect be worked out on the basis of such a test for different types of mental disorder?

In the field of speech defects the whole problem of non-readers, word blindness, stammering and so on would seem to be a place where the psychologist could be used to great advantage.

These are but a few suggestions of how a greater utilization of the psychologist and his techniques will be of value to the psychiatrist.

Committee on Medical Services:

WILLIAM C. SANDY, M. D., *Chairman*,
MORTIMER W. RAYNOR, M. D., *Vice-Chairman*,
EDWARD A. STRECKER, M. D.,
LLOYD J. THOMPSON, M. D.,
WILLIAM RUSH DUNTON, M. D.,
G. KIRBY COLLIER, M. D.,
GLENN E. MYERS, M. D.,
RANSOM A. GREENE, M. D.,
FREDERICK W. PARSONS, M. D.,
KARL M. BOWMAN, M. D.

Subcommittee on Psychology:

KARL M. BOWMAN, M. D., *Chairman*,
RANSOM A. GREENE, M. D.

PRESIDENT BOND.—In view of our time situation this morning, I shall not call for discussion on this report just now. I do want to recommend it to your consideration as it appears in its printed form because it ties up the constructive work of a great many committees for several years. There will be an opportunity to discuss it at the end of the Council's report. I shall call next on Dr. Sullivan in the absence of Dr. White for the report of the Committee on Relations with Social Sciences.

Dr. Sullivan read the report of the Committee on Relations with Social Sciences as follows:

REPORT OF THE COMMITTEE ON RELATIONS WITH THE SOCIAL SCIENCES.

In the absence of the Chairman I am asked to present the report of your Committee on Relations with the Social Sciences. There are three divisions of activity which the committee wishes to present. During the past year a Second Colloquium on Personality Investigation has been held. This met in New York City on November 29-30, 1929. It was much more highly integrated than was the First Colloquium held the preceding year. The discussion was focused upon the work actually being done by the various members in elucidation of personality. Three proposals for cooperative attack were suggested. It seemed as if the use of the life history method, so intimately familiar to us as the case history, should be subjected to cooperative research investigation in order that more useful information concerning the growth of each individual personality might be secured, and the picture of personality growth presented in the clinical history might be brought into condition for utilization in studying the various aspects of the individual; not merely the psychiatric. In this connection, Harold Lasswell, a political scientist, has made a survey of some clinical histories in mental hospitals with the result that much light has been shed upon important factors in the political domain,

and upon the inadequacy as personality documents of the psychiatric clinical history. The question might arise as to whether the psychiatrist was particularly interested in perfecting personality documents; whether, in fact, the current psychiatric history does not serve all his purposes, so that the result of such an investigation as that contemplated would be chiefly valuable to students of social science rather than to practitioners of the psychiatric art. Your committee is of the opinion that the greatest progress in the evolution of psychotherapeutic technique depends on this very same augmentation of insights into the multiform aspects of human personality and interpersonal relations which is desirable in the perfection of generally useful life histories.

Before taking up the other major recommendations of the Colloquium, your committee would report the arrangement with the American Sociological Society for the creation of a Division of Sociology and Psychiatry, the initial meeting of which was held in Washington in December. Three psychiatrists presented aspects of their work which seemed to have broad implications for sociologists and on which sociology might profitably make contributions once its preoccupation with general stereotypes of behavior was relinquished for a consideration of the individuals in its field.

The second recommendation of the Colloquium developed further the theme of mutual utility of more comprehensive information on personality phenomena. Considering for example the cultural anthropologist and the psychopathologist: the one focuses his attention on the origins, effects, and vicissitudes of let us say a particular taboo; the other, his attention on the inculcation, functional activity, and means of satisfactory personal adjustment, arising from this taboo. While it seems obvious that culture, for any dynamic rôle in civilizations, must manifest through people and their actions—such that the student of concrete individuals seems to be nuclear—none the less the psychopathologist, as he increases his acquaintance with actual personality problems, encounters situations in which he needs the help to be derived from controlled experiments. He cannot arrange laboratory investigations of benevolent and malevolent influences bearing upon individuals. But by joining hands with the cultural anthropologist, acquiring a measure of his technique, he can find for himself cultural situations sufficiently differentiated from those with which he is accustomed to deal, to permit their utilization as controls to many of his hypothesis-formulations. In brief, it seems as if we have come to the time for a broad visioned cooperation in research in which all those disciplines particularly human in their subject matter may be combined in the most intimate scrutiny and interchange of data assembled by workers somewhat guaranteed against astigmatisms and scotomata by familiarity with the broad ramifications of the person. This recommended form of research includes as its unique notion the integration of specially qualified representatives of these various techniques, in as close an approximation as possible to the ideal of a single investigator equipped with all the knowledge of the techniques represented.

The third matter which concerned the Colloquium is one on which your committee feels bound to present a concrete recommendation. Throughout our work and generally throughout all the contacts not only with the social sciences but with pediatrics, internal medicine, and other medical specialties, there has been heard on all sides the expression of desire for competently trained psychiatrists. Exterior to our primary interest, none the less it has been so generally evident as to be forced on our attention that psychiatric education is not functioning to solve the problems which are harassing everyone. In discussing the inadequacies of training of personnel for work with human personality this issue became central.

The current scene includes two great groups of people principally preoccupied with human welfare. On the one hand there are the social scientists and the social engineers. On the other there are the medical scientists and the machinery of public health and mental hygiene. We have come to a time when matters of physical health are capable of excellent management. Material culture is increasing rapidly, but human misery continues widespread and may be increasing. The institutions for social control that have grown up among us have until now chiefly concerned the social scientists and their technologists. The more medical branch is now called upon for aid. It is said that psychiatrists are needed at all the points at which social control is exercised. Thus, the rigid abstract institution of justice has come to desire that psychiatrists shall function in the case of every trial of an individual for felony. The whole "humanized" punitive system is to be revised on the basis of our insights into human personality, human motivation, and the therapy of antisocial conduct. Crime is to be attacked by removing personality warp in childhood, and child guidance clinics are increasing in numbers at an amazing and gratifying rate. It is becoming evident that something is the matter with the prevailing family situation as a source of character development, and the psychiatrist is requested to give light to parent-teacher organizations. The unprecedented development of primary education has gone somewhat awry and here too the expert in mental disorder is called upon for advice.

The dearth of competent psychiatrists is becoming a major issue in human welfare. It is no longer merely a matter of over-crowded mental hospitals in which the patients receive but momentary attention from the mental specialists. Psychiatry is no longer an underpaid medical specialty from which one cannot hope for sufficient income to care properly for a family. We are confronted by a matter amounting to a national emergency—one not alone of producing psychiatrists enough to meet the need, but one of producing in large numbers, psychiatrists competent to handle the extremely involved problems for which their aid is more and more insistently requested. Any mistakes and shortcomings in psychiatry are bound to repercuress gravely upon the social situation, and we have come to a time when any recklessness or stupidity on our part represents not only an injury to the persons directly concerned but an event from which radiate evil consequences of the most extraordinary variety.

The American Psychiatric Association must perceive that its duty to the American people has recently expanded in such fashion that it is confronted by an opportunity unparalleled in the history of medicine. The responsibilities that this situation brings with it, however, are of extreme gravity. We must act; but we must act with superlatively good judgment, with the very greatest foresight, lest we prove false prophets and meddlers instead of physicians. We must recruit to our ranks a body of men capable of discharging all but superhuman tasks, and must recruit them as rapidly as is consistent with success. Psychiatric education thus becomes one of the great issues that we must meet.

The specialty of psychiatry is almost universally neglected by medical educators. How much of this neglect is due to the peculiar history of the specialty, which has eventuated in wide differences in the views held by its foremost figures, need not concern us. The psychiatric viewpoint and the accumulating data of psychiatric research are recognized by ever-increasing numbers of intelligent laymen as invaluable contributions to welfare activities. So recent a body of important insights into human nature could not but include within it some diversity of opinion, in turn to be discharged only by an appeal to factual material. Until we have the sort of research, the sort of investigative attack on our problems, which has yielded a harvest of fundamental consistent theories elsewhere in the biological sciences, we cannot expect better of psychiatric theories and practices. Research and education are so closely linked in all sciences that we are under no necessity to stress the connection that must exist between proper attention to psychiatric education and the ultimate unification of fundamental psychiatric formulations.

In brief, there is nothing before the Association that seems to your committee to be so urgent as is an immediate well-planned and skillfully executed program of psychiatric research and education. We should have a committee including not alone outstanding representatives of the Association, but including men distinguished respectively in the field of medical education, in that of criminology, and among the social sciences generally. Your Committee on Relations with the Social Sciences recommends, therefore, that you consider the authorization of four of your members and an alternate to meet with these medical educators, a criminologist, and a representative of the social sciences generally, with power to form a Joint Committee on Psychiatric Education, to study ways and means for bringing about sound and timely remedy of the existing dearth of psychiatrists, seeking for that purpose such funds, expert advice, and other facilities as it may deem wise and expedient—this including cooperation of the Association committees concerned with related matters, the American Orthopsychiatric Association, the National Committee for Mental Hygiene, the White House Conference on Child Health and Protection, etc. Should your Association choose to act favorably upon this recommendation, it would be appropriate to request of your members on the joint committee that they advise frequently with

your Executive Committee concerning progress being made toward their goal, and report in that connection at subsequent annual meetings.

WILLIAM A. WHITE, *Chairman,*
GEORGE M. KLINE,
ARTHUR H. RUGGLES,
HARRY STACK SULLIVAN, *Secretary.*

PRESIDENT BOND.—While a very important recommendation was made in this committee report, I shall, with your consent, not call for discussion until the report of the Council comes in.

I will ask for one more committee report this morning, a brief report, which will be read by the Secretary in the absence of Dr. Meyer, for the Committee on Graduate Education in Psychiatry.

Secretary Cheney read the report of the Committee on Graduate Education in Psychiatry as follows:

REPORT OF COMMITTEE ON GRADUATE EDUCATION IN PSYCHIATRY.

Both neurology and psychiatry are fields of considerable complexity. The actual medical practice of these two domains can be carried on with very uneven training. Yet for the advancement of both psychiatry and neurology it is eminently important that both in the general teaching and the personal training comprehensive opportunities be cultivated to acquire a grasp on the nature of the basic data underlying the practical methods to get at the understanding and working of what is used in diagnosis and therapy and of what plays a rôle in constructive and progressive research. With the tremendous promises held out to the public through the appeals for mental hygiene and radical modifications of views of life based on a supposedly scientific and well-tested new psychopathology and knowledge of the nervous system and its functions, the capacity of bearing the responsibility becomes a matter of the greatest importance, and there arises the obligation to create opportunities for teaching and research and well organized and supervised medical service and a reward to those who take pains to train themselves in a reasonable grasp of the fields involved.

While both neurology and psychiatry presuppose the basic medical training, the special neurological and psychiatric training and practice is such as to require a considerable familiarity with both departments to promise safe and dependable work in either. A psychiatrist or psychopathologist who does not recognize diseases of the brain, or a neurologist who does not understand the rôle of personality functions are alike a danger to the patient and to the cause of medical science.

In order to promote both teaching and study it is therefore proposed that an examination and diploma in neurology and psychiatry be offered to those who do justice to a comprehensive training in these two fields and their practical applications in medical practice and mental hygiene and in research.

Highly commendable patterns of such rewards and recognitions are offered in the special diplomas developed by the British colleagues, and kindred developments in the fields of gynecology and obstetrics in this country.

Your committee has gathered considerable information along these lines, but at this time begs to limit itself to a "*report of progress*" before making a final proposal concerning the procedure to be recommended.

The principles so far on hand are embodied in the report of Dr. Strecker and his colleagues given before the American Psychiatric Association, and the following additional considerations and developments in our own ranks.

In the first place as an element of caution, due consideration is given to the voluntary aspect of the program so that we may avoid any dogmatic and undesirable stabilization such as might come from a one-sided and inflexible prescription of curricula and standards of examination. For this reason it is recommended that the selection of the personnel of the responsible body of examiners and administrators of the diploma problem be submitted to the sanction of the National Association dealing with the problems to be covered—the American Neurological and the American Psychiatric and the American Psychopathological Associations and the section in neurology and psychiatry of the American Medical Association, and possibly the Association of American Medical Colleges and some of the licensing bodies.

The diplomas shall not be considered an obligatory or official license to practice neurology and psychiatry or a condition for admission to the national associations, or a title to be displayed after one's name, but a recognition of work done and of a standard attained.

The standing "National Board of Examiners for the Diploma in Neurology and Psychiatry" will bring together the centers of training in these fields for comparative study of the curricula and the experience derived therewith. It will develop standards of examination based on the consensus of such experience, aiming fully as much at general perspectives as specific detail knowledge. There will be a question whether there shall be in addition to the general diploma, the consideration of special recognitions for advanced creative work.

If it is the desire of the Association to continue the present committee, it would appreciate any communication from the members bringing to its notice the facts and suggestions of the members.

An important task still under discussion is the question of the specific organization of the National Board, the question of a permanent secretary and the location and organization of a standing office. The arrangements in these directions will depend on the possibility of enlisting the cooperation of one or more of the foundations interested in the promotion of work on the nervous system and personality function. The committee will be greatly helped in this direction if the interested national organizations will express their *attitude in principle* with regard to the desirability and ultimate acceptance and support of the project.

Respectfully,

ADOLF MEYER, *Chairman.*

PRESIDENT BOND.—I now call for the report of the Council.

SECRETARY CHENEY.—The Council of the Association held a meeting at the end of the morning session yesterday and the Council received the written resignation of Dr. Brush as Editor of the JOURNAL with request to take effect in May, 1931. The Council voted to lay the resignation on the table for further consideration and with a request that the Editorial Board of the JOURNAL hold under consideration a possible successor to Dr. Brush as Editor.

The Council approved unanimously the recommendation of the Committee on the Relations with Social Sciences for the authorization of the appointment of four members, with a fifth as alternate, to form a joint committee with the purposes as indicated in the report of the Committee on Relations with Social Sciences.

There will be a meeting of the Council in this room tomorrow morning at nine-thirty to consider very important and final matters pertaining to the Association before the meetings of the Association adjourn, and it is earnestly hoped that every member of the Council may be present.

PRESIDENT BOND.—The report of the Council which deals with the recommendation made by the Committee on Relations with Social Sciences is before you.

DR. R. McC. CHAPMAN.—Mr. President, I move that the recommendations of the Committee on Social Sciences, having the approval of the Council, be approved by the Association, namely, that four fellows, with an alternate fifth, be selected by the Council to organize a joint committee made up of medical educators and others of high standing in their fields for the purpose of considering undergraduate medical education in accordance with the recommendation, such committee to report back to the Executive Committee and the Association as to progress made.

PRESIDENT BOND.—Dr. Chapman has moved that the report of the Council be adopted. This report asks the Council to choose the five delegates about whom Dr. Sullivan spoke. Is there any discussion?

The motion was put to a vote and carried.

PRESIDENT BOND.—We have just half an hour apiece for the papers and the discussion on them. I will call for the first scientific paper of the morning, "The Thyroid Factor in Dementia Praecox," by Dr. Hoskins and Dr. Francis H. Sleeper, by invitation, to be presented by Dr. Hoskins.

Dr. R. G. Hoskins presented the paper.

PRESIDENT BOND.—This very remarkable contribution from the physiological field is open for very brief discussion. May I ask Dr. Lewis to discuss it?

The paper was discussed by Drs. Lewis and Menninger, and by Dr. Hoskins, in closing.

PRESIDENT BOND.—The next paper on the program is one on "Social Psychiatric Research: Its Implications for the Schizophrenia Problem and for Mental Hygiene," which will be given by Dr. Harry Stack Sullivan in very abbreviated form.

Dr. Sullivan delivered his address.

PRESIDENT BOND.—This very admirable presentation by Dr. Sullivan is before you for discussion.

The paper was discussed by Dr. Brill.

PRESIDENT BOND.—Now, because the President of the United States is waiting, I have to cut off further discussion. We should like to hear from Dr. Sullivan, but we will have to pass on to the next paper, "The Effects of Carbon Dioxide on Stupors," to be presented by Dr. Harry C. Solomon.

Dr. Solomon presented his paper.

PRESIDENT BOND.—Our time is up, and the meeting is adjourned.

The meeting adjourned at twelve o'clock.

FRIDAY MORNING SESSION.

MAY 9, 1930.

The meeting convened at nine fifty-five o'clock, President Bond presiding.

PRESIDENT BOND.—We will open this session with the reports of three important committees. I will call first on the second committee on our program, the Committee on Activities of the Neuropsychiatric Division of the Veterans' Bureau to be presented by Dr. Glenn Myers, Chairman.

Dr. Glenn E. Myers read the report of the committee as follows:

REPORT OF COMMITTEE ON NEUROPSYCHIATRIC ACTIVITIES OF THE VETERANS' BUREAU.

The hospitalization of ex-service men suffering with neuropsychiatric diseases continues to be the major problem confronting the U. S. Veterans' Bureau. Under date of February 1, 1930, the authorized hospital load of the Bureau was 30,781 patients, distributed by types of disease as follows:

| | |
|-----------------------------------|--------|
| Tuberculosis | 7,026 |
| General Medical and Surgical..... | 9,165 |
| Neuropsychiatric | 14,590 |

Thus is it shown that approximately 50 per cent of all the patients hospitalized by the Bureau are being treated for neuropsychiatric disorders. Of this total neuropsychiatric load of 14,590, approximately 13,000 are in gov-

ernment hospitals and the remainder in contract civil and state hospitals. This group of approximately 1500 in contract civil and state hospitals includes only the veterans being treated for service connected disabilities, since the Bureau is only permitted by law to authorize contract care for such disabilities. However, under the provision of Section 202(10) of the World War Veterans' Act, 1924, as amended, treatment for non-service connected conditions may be rendered in government hospitals when facilities are available.

A recent survey of state and civil hospitals revealed that there are approximately 7500 ex-service men being treated for non-service connected disabilities, but entitled to government hospitalization when beds become available for their reception.

On January 1, 1930, there were 11,727 beds available for neuropsychiatric patients in Veterans' Bureau Hospitals, and approximately 1600 beds for neuropsychiatric cases allotted to the Bureau in other government hospitals. Facilities in Veterans' Bureau hospitals already under construction will provide 2459 additional beds for neuropsychiatric patients, and the recent appropriations by Congress will provide approximately 2700 additional beds for neuropsychiatric patients.

The question of legal retention of ex-service men in Bureau hospitals has always presented a problem which in many instances interfered and interrupted satisfactory care and treatment of its patients; there being no federal commitment act which permits commitment of ex-service men to government hospitals, it has in the past been necessary to rely upon voluntary admissions. In certain states where Bureau hospitals are located this question has been largely overcome by having the hospital licensed and recognized by the proper state authorities.

Realizing the difficulties arising in those states where no legal commitments could be made, strenuous efforts were put forth to draft a proposal covering the appointment of guardians and committees of ex-service men. This proposal met with favor and the Uniform Veterans' Guardianship Act, particularly in the form drafted by the National Conference of Commissioners on Uniform State Laws, and approved by the American Bar Association and in principle by the Tenth Annual Convention of the American Legion, and other ex-service men's organizations, has been adopted in the following states:

| | | | |
|----------|----------|----------------|--------------|
| Arkansas | Kentucky | Nevada | South Dakota |
| Colorado | Maine | New York | Tennessee |
| Idaho | Maryland | North Carolina | Utah |
| Iowa | Montana | Ohio | Vermont |
| Kansas | Nebraska | South Carolina | Wyoming |

In addition to the above states, five more have adopted legislation covering the more important items in the Uniform Veterans' Guardianship Act and bills embodying the Uniform Act or the provisions thereof, are now being considered in several of the state legislatures. Thus, the Veterans'

Bureau has been better able to retain its psychotic patients in its hospitals for the necessary period of treatment.

The Bureau continues to experience difficulty in securing competent neuro-psychiatrists, all new appointments having to be selected from the Civil Service list of eligibles. Recently an effort has been made to secure recent graduates who have already served their internship, and assign them to the neuropsychiatric hospitals for training, at an initial salary of \$3200 per annum with yearly increases of \$100 per annum. Several assignments of recent graduates have been made and it is believed that by adding the younger physicians to the hospital staffs the character of services rendered will be improved.

Postgraduate courses, covering a four months' period are being conducted at U. S. Veterans' Bureau Diagnostic Centers at Washington, D. C., and Palo Alto, California, in general medicine and surgery, modern diagnosis, and also a limited amount of neuropsychiatry. Much of the instruction is given by consultants. There are assigned to these courses for instruction 35 Bureau physicians, each year. At the Edward Hines, Jr., Hospital, Hines, Illinois, a three months' course for six physicians in clinical pathology and roentgenology is also being conducted.

Social work has been expanded in both hospitals and regional offices as rapidly as experienced psychiatric social workers have become available. The number of psychiatric social workers on duty now totals 84. As a means for meeting the need, 15 social workers have thus far been given a year of experience at stations where there was an experienced psychiatric social worker to supervise their work. In addition, there are now six junior social workers in training, all of whom, with one exception, have done post-graduate work in the social sciences. A number of additional positions have recently been created in six neuropsychiatric hospitals, primarily for the training of junior social workers. For the majority of these positions, young social workers with both college and school of social work training are being found.

With the volume of work being referred and the geographical distances to be covered in reaching the patients' homes, it was, of course, inevitable that at first the greater portion of time would be spent in making complete psychiatric social investigations in the community, primarily for diagnostic purposes. The treatment of the medical social problems discovered is not neglected, however. In instances where the Veterans' Bureau social worker, on account of the distance, cannot give the necessary intensive social treatment, the cooperation of local social agencies is gained and the Veterans' Bureau social worker acts in an advisory capacity.

While much of the hospital social work requires long distance correspondence with social agencies in the patient's home town or with the Veterans' Bureau Regional Office social worker for that territory, the Regional Office social workers make their contacts personally throughout the state. The Regional Office social workers are encouraged to select for intensive work the cases of patients in which there are hopeful indications that worth-while results

may be accomplished. All hospitals are now concentrating on the study of the home situation prior to parole and the better supervision of the patient on visit in the community.

The Bureau continues to encourage research work in its hospitals and the following are some of the more important problems under consideration and investigation at this time:

1. Follow-up study of cases of manic-depressive insanity from the date of inception during military service to the present time.
2. The action of sodium thiosulphate in cases of chronic arsenical poisoning.
3. The use of sulfosin in the treatment of neurosyphilis.
4. The effect of the dehydration regimen in the treatment of epilepsy.
5. The treatment of multiple sclerosis, paralysis agitans, and certain residuals of encephalitis lethargica by the ingestion of liver.
6. The calcium content of the blood in cases of epilepsy.
7. The administration of carbon dioxide and oxygen in cases of dementia praecox.
8. The effect of ketogenic diet on epilepsy.
9. The treatment of multiple sclerosis by means of diathermy.
10. A comparative study of the results obtained in the treatment of cases of neurosyphilis by means of (a) malaria therapy and (b) sodoku.
11. The significance of schizoid mechanisms in the manic-depressive syndrome.
12. A study of regression in manic-depressive psychosis.
13. Research work on the psychology of apathy.

PRESIDENT BOND.—This report is before you for discussion. If there is no discussion, we will pass to the reading of the next report, that of the Committee on Psychiatric Social Work, to be submitted by Dr. Bowman.

Dr. Karl M. Bowman read the report of the committee as follows:

REPORT OF THE COMMITTEE ON PSYCHIATRIC SOCIAL WORK.

Although this represents the first report of the Committee on Psychiatric Social Work, the Committee on Medical Services for the past two years has considered the problem of psychiatric social work and has presented definite findings and recommendations.

In the report at the 1928 session, it was pointed out that psychiatric social work was a new field, comparatively speaking, and that up to 10 years ago the mental hospitals were creating the main demand for this type of worker, but that during the past 10 years the demands of child guidance clinics and extra mural activities for such workers had considerably increased.

At that time it was noted that there were five schools for psychiatric social work in the United States and that two of the schools of social work gave courses in psychiatric social work. It was pointed out that all of these schools

required college graduation or its equivalent for entrance, but that in special instances exceptions might be made. The course of these schools was of two years' duration, corresponding to the academic year, with the exception of one school which had a continuous course of 14 months. It was also noted that the American Association of Psychiatric Social Workers limits its membership to college graduates who have completed courses of training of not less than 9 months' duration in recognized schools of social work, and who have had at least one year of successful practice in psychiatric social work.

It was felt at that time that a shortage of psychiatric social workers existed in the hospitals for mental diseases and that the schools of social work were not training students to fit into these positions.

At the 1929 session of this Association, the matter was developed further. It was pointed out that many psychiatric social workers had no training whatever with cases of mental illness and that many people were coming to think of the psychiatric social worker as one trained for work in a child guidance clinic.

The question was raised as to whether training in a hospital for mental diseases should not be a requisite of every person who might qualify for the term psychiatric social worker. It was held that all mental hospitals should have at least one social worker on their table of organization, that this worker should have had special training in a school of social work. It was recommended that social workers are needed in mental hospitals in proportion to at least 100 patients on parole and that suitable use of social workers would result in a lessened amount of hospitalization and a more successful rehabilitation of persons in the community with a saving to the tax payer.

The present Committee on Psychiatric Social Work has endeavored to make a study of the whole problem of psychiatric social work. Since the American Association of Psychiatric Social Workers had suggested a conference with a committee from this Association, your committee at once got into contact with the committee from the American Association of Psychiatric Social Workers. It was found that that committee was carrying out an elaborate survey and had sent out a questionnaire which would contain a great deal of valuable material on the subject. It was agreed to wait until the returns from these questionnaires were available before discussing the matter further. Unfortunately there was so much delay in receiving replies that this material could not be gone over in completed form. However, the material available was checked over carefully and as a result the Association of Psychiatric Social Workers have submitted the following report which we feel should be presented in full to the Association for consideration.

SUGGESTIONS FOR COOPERATIVE STUDY OF PSYCHIATRIC SOCIAL WORK IN STATE HOSPITALS BY THE A. P. A. AND THE A. A. P. S. W.

Problem.

Method of meeting the shortage of adequate personnel for psychiatric social work in state hospitals and at the same time maintaining the stand-

ards of training and experience for psychiatric social work as laid down by the A. A. P. S. W. for its members.

Suggested Method of Securing Material on Which to Form Conclusion.

1. Study of the extent of the problem of shortage.
 - a. In 1927 the Exhibit Committee of the American Association of Psychiatric Social Workers sent questionnaires to 155 state hospitals in United States, regarding the psychiatric social workers in their employ—144 replied. 66 had psychiatric social workers—78 had none. 120 hospitals reported no vacancies. 11 hospitals reported one vacancy. 13 were unascertained as to vacancies. The latter figure included the 78 hospitals having no provision for social workers.
 - b. As the 1927 material seemed inadequate for 1930 it is suggested that more definite information be obtained from the National Committee for Mental Hygiene which has recently been surveying the social service situation in hospitals.
- c. In the 1929 questionnaires which the A. A. P. S. W. sent to head workers no definite question was asked regarding vacancies. All were asked as to whether a larger staff was needed. 23 of the 50 hospitals reported the need of 42 more workers.
- d. In addition to the above studies, material should be gathered from the new 1930 A. P. A. questionnaire which has a definite question on the matter of vacancies.

Conclusions.—A thorough analysis of the studies which are already under way by the A. P. A. should give by June, 1931, a much more accurate estimate of the shortage of social workers in state hospitals than exists at present. A great deal has been said about the lowering of standards in order to fill the state hospital positions but so far no one knows definitely as to whether there has been any great shortage. A matter of more importance is the education of the various hospitals to the need for workers and the passing of bills in the legislature which will provide for the establishment of social service departments.

2. Study of the training and experience of social workers already employed in state hospitals.
- In 1929 the A. A. P. S. W. sent questionnaires to all of the state hospitals having social service departments. Replies were received from about 50 hospitals, representing 17 states and 108 workers. Each worker was asked to describe briefly her background and training, which was to include college, graduate school, professional school, supervised field work, experience—both before and after training. While some of the answers were quite vague, the following rough conclusions have been drawn. The statistical results were compiled separately for head workers, first assistants, second assistants and third assistants. The term head worker is interpreted as one having charge of 3 or 4 workers and

of training students. Under the first assistant group were placed those who were the only workers in the hospital. By salary classification some of the latter were paid no more than second assistants but it was felt that their responsibilities were greater than those of second assistants in departments where there were head workers to assume full responsibility for policy and standards.

| | |
|--|----|
| <i>Head Workers</i> | 16 |
| College training: Of the 16 workers, 8 were graduates of colleges. | |
| Schools of social work: Of the 8 college graduates, 5 were graduates of schools of social work. Two others who had had college equivalent were graduates of schools of social work, making a total of 7. | |
| Special courses in social work: Of the remaining 8, 6 had had special courses in social work, taken usually during the summer time. | |
| Advanced education: Two in addition to college degrees had had advanced education. | |
| Nurses' training: Five were registered nurses. Of these, one was a graduate of a school of social work (New York State). | |
| Training in family welfare work or other branches of case work, not psychiatric—8 of the 16. | |
| State hospital experience before becoming head worker: 6. Of these 4 had also had experience in family welfare work. | |
| <i>First Assistants</i> | 47 |
| College training—31 with 4 unknown. | |
| School of social work—14 of 31, but one other had had college equivalent. | |
| Special courses in social work—14. | |
| Advanced education—3 | |
| Nurses' training without any college experience—7 (New York State). | |
| Experience in family welfare work or other branches of case work, not psychiatric—22 | |
| State hospital experience—22. | |
| <i>Second assistants</i> | 28 |
| College training—18 | |
| School of Social Work—6. | |
| Special courses in social work—5. | |
| Nurses' training—2 | |
| Family welfare work—10. | |
| State hospital experience—10. | |
| <i>Additional workers</i> | 18 |
| College training—12. | |
| School of Social Work—3. | |
| Special courses in social work—2. | |
| Nursing, family welfare or state hospital experience—none. | |

The following percentages will probably show more clearly the trends of training for state hospital workers.

| | College degrees, per cent | School of social work, per cent |
|------------------------|---------------------------------|---------------------------------------|
| Head worker | 50 | 45 |
| First assistant | 65 | 32 |
| Second assistant | 64 | 21 |
| Third assistant | 66 $\frac{1}{2}$ | 16 |

New York State is the only state in which the head workers had had nurses' training. Many of these workers have held their positions for many years. It is interesting to note that their assistants are either college trained or graduates of schools of social work.

Conclusions.—From the results of the questionnaires it seems that our Association might conclude that it is fair to demand for any grade of worker in a state hospital, a college degree or its equivalent. For head workers and possibly first assistants it seems fair to demand training in a school of social work.

NOTE.—In at least four states social workers are appointed under Civil Service ruling. It is advisable to make a study of these rulings as they affect materially the qualifications of the workers.

3. Study of the relationship of the training schools to state hospitals.
 - a. Study of the percentage of the students in schools of social work placed in state hospitals for their field training.
 - b. Study of the proportion of the graduates who enter state hospital positions upon completion of work in schools. The Education Committee of the A. A. P. S. W. is already collecting material on these points and at some future date should be able to give actual figures regarding it.

When material from the above mentioned studies and questionnaires has been secured and absorbed it is suggested that a joint letter from the A. P. A. and the A. A. P. S. W. might be sent to the heads of the training schools stating our findings and asking help in solving the problem of interesting students in state hospital work.

 - c. Consultation with the schools regarding possible cooperative plans of training college graduates in the hospitals, supplementing their work by courses in the schools of social work.
 4. Study of the content of work in state hospitals.
- The 1929 questionnaire sent out by the A. A. P. S. W. to social workers included the "connection" of the worker with professional associations, educational opportunities, office equipment, effect of position on the workers, functions, how divided among the taking of histories, making investigations, social analysis and treatment, the policy of the referral of cases, the relationship of the work to out-patient department and clinics, salaries, methods of keeping records,

etc. There has been no exact compilation of material so far but general survey reveals the following information.,

Professional associations: Total of 63.

Head workers: 16.

| | |
|--------------------|----|
| A. A. S. W..... | 13 |
| A. A. P. S. W..... | 10 |
| A. A. H. S. W..... | 4 |

First assistants: 49.

| | |
|--------------------|----|
| A. A. S. W..... | 16 |
| A. A. P. S. W..... | 10 |
| A. A. H. S. W..... | 2 |

Information on remaining grades of workers too indefinite for compilation.

Educational Opportunities.—All of the workers attend staff meetings and any lectures conducted at the hospital. In the hospitals covering rural districts there is very little opportunity for work in professional organizations.

Time Element.—Vacations range from two weeks to 25 days. The majority of the 50 hospitals have only two weeks vacation. In Massachusetts and New York where the rulings are covered by Civil Service the vacations are of the two weeks length. With the exception of the State of Massachusetts all social workers are allowed legal holidays. There is no definite standard on time allowed for sick leave. In the State of Michigan there is no time allowed. In Massachusetts two weeks, in New York, depends entirely upon the length of sickness.

All social workers are allowed time to attend the state conferences of social work. In all hospitals the expenses of the state conferences are allowed for some of the workers.

Under the effect of the position on the worker, although all stated there was additional strain due to limited personnel, inadequate vacations, exposure to weather, few felt that this was any greater than in any other fields of social work. The majority did feel that the responsibility for making decisions regarding mental patients was greater than in other fields of work, such as teaching.

Salaries (by states) :

Massachusetts :

First grade workers—\$1800-\$2100 with maintenance.

Second grade workers—\$1440-\$1800 with maintenance.

Third grade workers—\$1080-\$1440 with maintenance.

New York :

\$1200-\$1800 with maintenance. (No divisions under groupings made.)

Connecticut :

\$1200-\$1800 without maintenance. (Workers feel that this salary is inadequate.)

Iowa (Psychopathic) :

Head worker—\$2500 with maintenance.

Assistant worker—\$1800 with meals.

Michigan:

\$1200-\$2100 with maintenance.

New Jersey:

Head worker—\$1800-\$2400 with maintenance.

Assistant worker—\$1440-\$1800 with maintenance.

District of Columbia:

Head worker—\$2300-\$2800 with maintenance.

Assistant worker—\$2000-\$2400 without maintenance.

Ohio:

\$1260 with maintenance.

Colorado (Psychopathic):

Head worker—\$2200-\$2400 without maintenance.

First assistant—\$1500-\$1800.

Second assistant—\$1400-\$1600.

Third assistant—\$1200-\$1500.

California:

\$1500-\$1800 with maintenance.

South Carolina:

\$1500-\$2100 (unknown regarding maintenance).

Indiana:

\$900-\$2000 with maintenance.

Pennsylvania:

\$900-\$2000 with maintenance.

\$1800-\$3000 without maintenance.

Illinois:

\$900-\$1800 with maintenance.

New Hampshire:

\$1080 with maintenance.

General Statement.—Whenever maintenance is included the workers feel that the compensation is adequate.

Functions.—Material rather indefinite. In all the hospitals, workers are asked to take histories and make investigations, percentage varies from a few hospitals where all cases are referred for social history to those where only about 10 per cent are referred. In all hospitals, cases are referred for pre-parole investigation and employment situations. Only about one-third of the hospitals analyze cases (although on the questionnaire workers were asked what points were covered in the analysis. Only a few replied).

Treatment.—In all hospitals parole cases are referred automatically to social service department but no statistics are given as to the actual number of these which are visited. In the State of New York, the number of workers per hospital is based on parole population, there being one worker for every 100 parole patients. Information on treatment is rather vague, although the general impression is received that the workers endeavor to do re-educational work with patients, try to help the patient change his attitude toward himself and try to make his relatives understand him. In hospitals in rural districts the treatment part of the work has to be reduced. With very few exceptions the 50 hospitals are conducting out-patient clinics.

The information on the questionnaires is not clear as to the exact number of these clinics, the exact time spent on them, how many of the cases are ex-hospital cases and how many new. At least 75 per cent of the workers are having some contact with child guidance cases and cases which have not been under hospital care.

Conclusions.—Due to the vagueness of the above material, it is suggested that a joint study be carried on by the A. P. A. and the A. A. P. S. W. as to the exact functions of the state hospital social workers. A few questions could be outlined and sent to the head workers. An analysis of the replies to the questions might indicate whether or not it would be possible to use workers with different degrees of training, for different functions within the hospital.

5. Conclusions from the above studies should be presented by June, 1931, and should cover the following:

- a. Alternative methods of meeting the shortage and maintaining the A. A. P. S. W. professional standards of psychiatric social work.
- b. Minimum standards for personnel and performances in state hospitals.

Summary.—The A. A. P. S. W. is very much interested in the reports of the committee on social work of the A. P. A. and feels that the earlier reports are somewhat misinterpreted in the field of psychiatric social work. Although there are certain points which the A. A. P. S. W. is in a position to clarify at the present time we feel that as the problem of supply and demand is indefinite as well as the training qualifications of the state hospital social workers, that we should delay before giving any exact recommendations as to how the problem of the shortage should be met or what should be the maximum or minimum requirements. As our committee is now in a position to continue some of these studies mentioned above we will be glad to undertake such studies for the committee of the A. P. A. or to work jointly with such a committee.

MISS BROCKETT,
MAIDA SOLOMON,
KATHLEEN O. LARKIN,
ESTHER C. COOK,

*Special Committee on Social Work
in State Hospitals.*

There are two other studies being carried on at the present time which will contain valuable information for this committee, but which are not available at the present time. We refer to the questionnaire sent out by the AMERICAN JOURNAL OF PSYCHIATRY and endorsed by this association, and another questionnaire sent out by the National Committee for Mental Hygiene.

Your committee felt that since the material from these three elaborate questionnaires would become available during the next year, there was no reason to duplicate a great deal of this work by sending out a fourth questionnaire. For this reason many points are not covered in the present report, and it is felt better to avoid any discussion whatever of the topic and wait until adequate information is available so that these points may be discussed intelligently.

Your committee wishes to call attention to the attempt which the State of Massachusetts is making for the training of psychiatric social workers in state hospitals.

The following outline of the course has been prepared by Miss Hannah Curtis, Chief Social Worker, Department of Mental Diseases, under the supervision of George M. Kline, Commissioner for Department of Mental Diseases for the State of Massachusetts, and a member of this committee:

"STUDENT COURSE—SOCIAL SERVICE DEPARTMENT."

"Purpose.—To train students in state hospital social work with a view to creating a source of supply for institution social work.

General Plan.—Applicants for student training may be placed in approved training centers for a period of from 9 to 12 months. Maintenance but no salaries will be allowed during the training period. Not more than four students are to be placed in any institution at a given time (present policy).

"Placements.—Transfers or dismissals of students are to be arranged through the central social service office (in accordance with present policy) to be based on joint action of institution officials and director of social service. Arrangements have been made with the Simmons College School of Social Work for theoretical training. This year an institute course—April 21 to May 29—will be given, to which our students are eligible. For the coming year (September) students may attend the school two mornings a week (70 minutes each) for the entire school year. In addition to the above, arrangements have been made with the Family Welfare Society of Boston whereby students may be trained in family social work and community organization by serving two days a week for three months in a district agency beginning April 1, 1930.

"At the discretion of the hospital officials, students may attend Dr. Thom's Monday forenoon conferences on mental hygiene, State House.

"Some plan is to be arranged whereby some instruction may be given in the care, training and supervision of the mentally deficient.

"It is recommended that students completing the course outlined by the department be given a certificate or some recognition by the department of mental diseases which will facilitate association or affiliations with social organizations and state hospital social service in other states.

"Students who do not complete the entire course may be considered for vacancies on the Grade III level in Massachusetts.

"Students completing the course automatically become eligible for the Grade II positions in our Massachusetts institutions.

"Training Centers."

"In accordance with the general policy relative to student training, certain requirements must be met by institutions desiring to engage in work of this kind. Training centers are selected on the basis of their equipment for social service training, which includes the following:

"1. A social service department in which there are at least two trained social workers, one of whom shall be acting as head social worker, and shall possess teaching ability.

"2. Hospital staff conferences at which cases of patients are analyzed and discussed psychiatrically and socially.

"3. Lectures and talks on psychiatry and related subjects to which students shall be eligible.

"4. Clinic service—as part of the hospital organization; out-patient clinics, mental hygiene or child guidance clinics in the community.

"5. The chief function of the social service shall be social case work and supervision of patients. Investigation and history work are, of course, included, but they do not constitute the chief function of social service.

"Requests for students may be registered at the social service office together with a descriptive statement of the hospital facilities for training in social work."

This type of training corresponds more clearly to that given by the Smith College School of Social Work than to the courses of any of the other schools. The Simmons College School of Social Work has expressed itself as being in sympathy with this attempt and is cooperating by admitting these students for certain courses. Both Smith and Simmons have agreed to the placement of their own students with those from the state course.

The State of New York is also contemplating a plan for training of psychiatric social workers. It seems likely that a course of training may be given at the Psychiatric Institute in New York City. Definite plans for such a course have not as yet been drawn up. The State of Illinois is also contemplating some such method of training.

Your committee, therefore, wishes to state that it has no particular recommendations to make at the present time. It hopes by next year to have carefully analyzed the material from the three questionnaires which have been previously referred to, and to be able to make a number of definite statements with regard to the present status of psychiatric social workers. Meanwhile it feels that psychiatric social work is still in its formative state, that no final recommendation with regard to qualifications and methods of training should be made at this time, and that we should keep a very open mind on the subject awaiting further developments and encouraging the efforts which are being made at present to solve this whole problem. There seems to be little ground for the fear expressed in a previous report that psychiatric social workers are encroaching on the field of the psychiatrist or psychologist.

Respectfully submitted,
KARL M. BOWMAN, *Chairman.*

PRESIDENT BOND.—I understand there is no discussion of this very interesting report.

The third report of the morning is that of the Committee on Legal Aspects of Psychiatry. We thoroughly understand that our committee can do nothing unless it enlists the cooperation of many other organizations in differ-

ent fields than our own. We have two representatives of the two most powerful organizations from whom we seek help, and I want to introduce them to you now. The first is Mr. Rollin M. Perkins of the Committee on Psychiatric Jurisprudence of the American Bar Association. Mr. Perkins!

MR. ROLLIN M. PERKINS.—*Mr. Chairman, Ladies and Gentlemen:* Unfortunately, I am in the position of trying to do two things at the same time. I understand some of you are in a like predicament. In addition to my position as Chairman of the Committee on Psychiatric Jurisprudence, representing the American Bar Association, I am on the Committee of Advisors on the Code of Criminal Procedure of the American Law Institute and that committee is in special session at this moment. I must leave almost immediately for that work. I am very sorry that it is necessary for me to leave, because there are matters coming up here this morning that I would like very much to remain and hear.

As you know, your committee and our committee have been working together for about three years and the cordial cooperation that has resulted from that work and the very sincere personal friendships that have arisen from it tend to relieve what would otherwise be quite an embarrassing moment to me just now.

As we look back over the effort of mankind to solve its most difficult problems, we find something of interest, something of amusement, not a little of pathos, in the prevalent notion that each branch of learning is boxed up in a water-tight compartment. We know, of course, that there are probably no water-tight compartments of learning, that each has something to contribute to many other branches and that many other branches have something to contribute to it. For instance, there are many problems which need contributions from both the profession of law and the profession of psychiatry. It has been the problem of these cooperating committees to try to solve some of those difficulties. These professions are so vast and so difficult that it is very much to ask of a man to keep up with either one, to say nothing of attempting to master both. So that the cooperative work seems to offer the only hope of solution.

I have been amazed to find two things; first, the apparent hopeless difference of opinion between the lawyer and the psychiatrist where the two have given no particular thought to this cooperative work; and, second, to find how much common ground there is when we get together across the council table.

I bring to you at this time an unofficial word of greeting from the American Bar Association, an official word of greeting from the Committee on Psychiatric Jurisprudence and a personal word of hope that this cooperative endeavor which has been moving along now for about three years shall continue for some time in the future. At the present time we on the legal side are chiefly engaged in an educational campaign among the lawyers. We need your help in that as well as in the solution of the problems themselves. I am very happy to have this opportunity to say this brief word this morning.

PRESIDENT BOND.—I should like to ask Dr. William C. Woodward, of the Committee on Psychiatric Jurisprudence of the American Medical Association to speak to us. Dr. Woodward!

DR. WILLIAM C. WOODWARD.—*Mr. Chairman and Gentlemen:* It is with a feeling of embarrassment that I appear before a group of specialists such as you. I cannot help fearing that I may be in the position of the man who said:

O, see the happy moron,
He doesn't give a damn.
I wish I were a moron;
My God! perhaps I am.

I fear the judgment that you experts may be passing as you inspect me at a distance.

The specialist—the psychiatrist, for instance—as you all know, is a person who knows more and more about less and less. Knowing more and more about less and less has its advantages, but it has corresponding disadvantages; it brings the worker so close to his narrow field that it is sometimes difficult for him to see things in a proper perspective. Because of that fact, the American Medical Association, which is not an association of specialists, stands in a strategic position with reference to the work of the psychiatrist.

The American Medical Association represents 95,000 physicians, practicing in all branches of medicine in all parts of the country. Some are psychiatrists, of course, many of them members of your own organization; there are, however, surgeons obstetricians, ophthalmologists, otolaryngologists, and dermatologists; there are men who are practicing general medicine, some in metropolitan centers, many in small communities, thoroughly isolated from their fellow physicians. They are the people on whom you must largely rely to carry out any program that you may lay out with respect to psychiatric legislation or psychiatric education. The facilities that the American Medical Association has to offer you, through its many publications and its large membership, to communicate with the people who direct and control the educational and legislative programs of the country, if properly utilized, may serve you in good stead.

After all, the psychiatric problem is not primarily a problem for the psychiatrist to deal with. It is a problem for the general practitioner and for the layman. Until you have given the laymen some idea of the modern conception of psychiatry and until the average physician can recognize early conditions in his patients that call for the services of a psychiatrist, you will not get anywhere. So while you are bending your efforts to develop the science and the art of psychiatry, you must try to diffuse a working knowledge of them among the laity and among the rank and file of the physicians, if you would do the greatest amount of good. The bride of a young physician, I think it was, who was going through an insane asylum with him for the first time, who remarked, "What a blessing it is that all of these people

went crazy before they were sent to a place like this." You must disabuse the people of such ideas as that, and the American Medical Association will help you do it.

I will go a step further. When you can agree with the American Bar Association and with the American Medical Association on a legislative program, you will have gone a long way toward making that program effective. Through their well-organized state and county bar associations and state and county medical associations, you can have the program agreed upon intelligently presented to the legislators of the country, both state and federal. I pledge my personal support—and I think I am almost privileged to pledge the support of the American Medical Association, although I have no definite authority to that end—to carrying out any rational program that may be agreed upon for the purpose of improving the laws of the country, in so far as they relate to the insane and mentally defective people living among us.

PRESIDENT BOND.—We will now hear, again in very abbreviated form, the report of the Committee on Legal Aspects of Psychiatry of our own organization. This will be presented by Dr. Overholser.

Dr. Overholser read the report of the Committee on Legal Aspects of Psychiatry as follows:

REPORT OF THE COMMITTEE ON THE LEGAL ASPECTS OF PSYCHIATRY.

Your Committee on the Legal Aspects of Psychiatry herewith submits its fifth report. During the year just past, there have been several developments of considerable interest as indicating that the professions of medicine and law are coming into a closer cooperation, particularly on matters relating to the place of psychiatry in the administration of the criminal law. This report aims to chronicle these events, and to indicate how the members of this Association may be of service in continuing this cooperation.

In last year's report, it was indicated that there was a possibility that the active cooperation of the American Medical Association might be obtained. At the July session of that Association in Portland, Oregon, one of the members of this committee presented by invitation a paper on the rôle of psychiatry in the administration of criminal justice. Largely as an outgrowth of this paper, the following resolution was passed by the House of Delegates of the American Medical Association.

"WHEREAS, The House of Delegates of the American Medical Association has previously expressed its dissatisfaction with the present status of medical expert opinion evidence and has expressed its approval of the efforts of the American Bar Association and of the various bar and medical societies to correct by remedial legislation and by changes in court procedure the present undesirable features of the introduction of such evidence, and

"WHEREAS, The American Psychiatric Association and the National Crime Commission are devoting much study to the subject of such evidence, particularly as relates to psychiatric matters in criminal cases, with a view to improving procedure, and

"WHEREAS, The Criminal Law Section of the American Bar Association has appointed a committee to collaborate with a committee of the American Psychiatric Association in formulating plans for bringing about a betterment of the present undesirable situation, and

"WHEREAS, Such efforts are of vital interest and importance to the entire medical profession, be it therefore

"Resolved, That the House of Delegates of the American Medical Association express its continued interest in the correction of the abuse of medical expert opinion evidence, and that it offer to the American Bar Association, The American Psychiatric Association, the National Crime Commission, the various state and county medical and bar associations, and such other reputable organizations as are actively pursuing efforts directed toward such correction, the assistance and cooperation of the American Medical Association in promoting the passage of appropriate legislation and in bringing about suitable changes in court procedure with reference to such evidence, and be it further

"Resolved, That the House of Delegates approves the principle of securing in the case of all capital charges and in the case of as many other criminal charges as the psychiatric facilities of the state will permit an impartial and routine mental examination of the defendant in advance of the trial as a means of obviating the contentious introduction of partisan testimony, and that it approves further the principle of removing as far as possible the question of sanity from the trial itself, reserving the employment of psychiatric data for a post-trial inquiry to determine what treatment is appropriate to the convicted person, and be it further

"Resolved, That a copy of this resolution be forwarded to the American Bar Association, The American Psychiatric Association, and the National Crime Commission."

Acting on the instructions of this resolution, the trustees of the American Medical Association appointed a committee of three, consisting of Dr. H. Douglas Singer of Chicago, as Chairman; Dr. William C. Woodward of Chicago, and Dr. Winfred Overholser of Boston. This committee has since been extended to deal as well with non-psychiatric relations between medicine and the law, and to this end Drs. Ludvig Hektoen of Chicago, and William J. Stapleton of Detroit have been added. That section of the committee consisting of Drs. Woodward, Hektoen and Stapleton will collaborate with a special committee of the criminal law section of the American Bar Association which has been appointed for this purpose; that portion consisting of Drs. Singer, Woodward and Overholser has had two meetings jointly with your committee and the Committee on Psychiatric Jurisprudence of the American Bar Association.

The first of these joint meetings of the three committees was held at Memphis October 21, 1929, the day preceding the meeting of the Criminal Law Section of the American Bar Association. It was attended by Messrs. Perkins, Cohane and Bettmann of the Bar Association; Drs. Singer and Woodward, for the Medical Association; and Dr. Overholser, representing both the American Medical Association and the American Psychiatric Asso-

ciation. The meeting lasted the entire day, and was productive of many helpful suggestions for work by the respective committees during the year. The committee of the Bar Association presented the following resolution which was unanimously adopted by the Criminal Law Section, and later on unanimously adopted by the entire Bar Association:

"I. *Resolved*, That the Criminal Law Section shall recommend that the American Bar Association go on record as stating the following matters to be desirable:

"1. That there be available to every criminal and juvenile court a psychiatric service to assist the court in the disposition of offenders.

"2. That no criminal be sentenced for any felony in any case in which the judge has any discretion as to the sentence until there be filed as a part of the record a psychiatric report.

"3. That there be a psychiatric service available to every penal and correctional institution.

"4. That there be a psychiatric report on every prisoner convicted of a felony before he is released.

"5. That there be established in each state a complete system of administrative transfer and parole, and that there be no decision for or against any parole or any transfer from one institution to another, without a psychiatric report.

"II. *Resolved*, That the Criminal Law Section recommend to the American Bar Association that the various state and local bar associations be requested to give consideration to the recommendations in resolution '1' as a part of their programs during the coming year, and for this purpose to secure the cooperation of their respective state and local medical associations.

"III. *Resolved*, That the Criminal Law Section recommend to the American Bar Association that the Committee on Psychiatric Jurisprudence be continued for further study of this field in cooperation with committees from the American Psychiatric Association and the American Medical Association and that it be empowered to adopt such means as in its best judgment are best suited to effectuate the purpose of these resolutions."

Since that time, approximately 10,000 copies of the report embodying this resolution have been distributed to the various state and local bar associations, with the request that they give consideration to the matters contained therein, and take appropriate action. It is quite likely that during the coming year members of this Association will be called upon by the local bar associations to advise them on the matters contained in the report. They can be a very decided help, not only to those associations, but to the entire cause, by helping to bring about an understanding between the two professions.

A meeting of the three committees was held in Chicago March 29, 1930. For the Bar Association, Messrs. Perkins, Bettmann and Cohane were present; for the American Medical Association, Drs. Singer and Woodward. Dr. Karl A. Menninger represented this committee. The rapprochement signified by this meeting was considered by the press of the country to have sufficient news value to warrant sending out an item by the Associated

Press which was used by many of the city newspapers. Plans for further activities of the committees were discussed at the meeting.

A Committee of the New York Academy of Medicine has been collaborating during the past year with the Bar Association of the City of New York along lines similar to those which have been dealt with by your committee and that of the American Bar Association. Although the committee has as yet made no report, its appointment and its activities are encouraging signs.

Of interest is the appointment of one of the Fellows of this Association, Dr. Walter N. Thayer, Jr., formerly of Napanoch, as Superintendent of Prisons of the State of Maryland. Maryland thus becomes the third of the American states to appoint a psychiatrist as the head of its penal and correctional system.

In the last report of your committee were mentioned two studies which had then not appeared in print. One of these was the supplementary survey conducted by the National Crime Commission on the use of psychiatric facilities in the criminal courts. This was published in *Mental Hygiene* for October, 1929. The other was the report on prison conditions made as a result of a personal study by Dr. Frank L. Rector, under the auspices of the National Society for Penal Information. This volume has recently appeared, and contains much of interest concerning the use of psychiatry in penal and correctional institutions.

At a meeting of the Central Neuro-Psychiatric Association held in Denver on September 28, 1929, Dean Roger H. Wolcott, of the School of Law of the University of Denver, presented a paper entitled "A Course in Psychiatry as Part of a Law School Curriculum," describing the course given by Dr. Franklin G. Ebaugh at the University of Denver. Thinking that it might be of some interest to members of the Association to know to what extent this practice has been adopted among law schools of high standing, a questionnaire was sent out by your committee to the dean of each of the 71 law schools which have been approved by the Council of the American Bar Association on Legal Education. Of these questionnaires, 56 have been returned. It appears from a study of the questionnaires that six law schools are at present giving formal instruction in psychiatry to their students. In four of these schools, separate sets of lectures are given; in two others they are given in connection with other courses. Seven other schools which are not now giving such instructions contemplate giving a course within the next year. Twenty-seven of the deans offered comments on their opinion of the value of such a course; nine stated that it was, in their opinion, of value and eight others that there was no time for such a course in their curriculum, implying or making the statement definitely that they would be glad to give such a course if time permitted. Two others stated that a course of this sort should be given in the undergraduate instruction rather than in the crowded law school curriculum. Three deans stated that, in their opinion, such a course has no place in a legal course. One other opined that such a course "might be good," and the comment of the other was irrelevant. It appears, therefore, that a movement to instruct law students in the elements of psychiatry as an aid to them in understanding the

human behavior still has a very considerable way to go. It is not unreasonable to suppose, however, in view of the examples which are being given to law educators that other schools will follow the lead of the five already cited.

LEGISLATION.

One 1929 bill which escaped the attention of your committee when the last report was prepared was passed by both Houses of the Illinois Legislature as Senate Bill 405, but was vetoed by the governor. This bill provided for a general sentence in cases of felony, the prisoner to be delivered to the custody of the Department of Public Welfare; prisoners were to be classified with respect to their "relative intelligence, amenability to correction, and the environmental and hereditary causes and emotional or mental traits to which their offenses may be primarily or substantially attributed."

During the year 1930, only nine states have had legislative sessions; the United States Congress has also been sitting. The only federal bill that is of interest is HR 7410, providing for a hospital for defective delinquents. This provides that inmates of federal penal and correctional institutions who are found to be insane, of unsound mind or otherwise defective, may be transferred to this hospital. This bill is still in committee.

Louisiana.—Act No. 17 of the extra session of 1928, mentioned in this committee's report last year, was declared invalid and unconstitutional by the Supreme Court of Louisiana in the case of State *vs.* Lange, 123 So. Rep. 639 (June, 1929). The provision of the statute making the report of the Commission final was held to contravene the defendant's constitutional right to have his defense of insanity tried by a jury. Your committee is informed that a bill not subject to these objections will be introduced at the forthcoming session of the legislature.

Massachusetts.—House 38, proposed to amend the Briggs Law by making eligible for examination all persons indicted for an offense which might be punished by life imprisonment. The committee reported adversely.

New York.—House Bill 22 provides for the appropriation of \$50,000 for a new state prison for defective delinquents.

House 145: This bill, proposed by the State Crime Commission last year in substantially the same form (as House Bill 1159), provides for the appointment by the prosecution of two experts, by the defense of an equal number, and by the court of one; these five constituting a commission to make an examination and report in any criminal case where insanity is an issue. The compensation of these experts is limited by the act. This bill failed.

House 303: This bill was another attempt to establish a psychiatric clinic in the court of general sessions in New York City, a matter which has been delayed for several years by political quarrels. The bill failed of passage.

House 307: This bill proposed to submit every school delinquent (truant or insubordinate pupil) to a mental and physical examination, and to have an adequate social investigation. The bill failed of passage.

House 756: This act is modelled along the lines of last year's House Bill 730 providing for the commitment to a mental hospital of any defendant who pleads insanity. It likewise provides for the commitment to a mental hospital of any person awaiting trial who is in the opinion of the judge in such condition as to need care in a mental hospital. This bill did not pass.

House 960: provides for referees in insanity, and differs but little from the present cumbersome and ineffective method of a commission of lunacy as used in New York City. It has failed.

House 961 is somewhat similar to 756: it provides that a person in confinement appearing to be insane or a mental defective may be committed to a mental hospital for observation. It has not been enacted.

Senate 100 amends the mental hygiene law by setting up a board of psychiatric examiners who shall determine the qualifications of psychiatrists to act in any criminal action or proceeding. Such a person may be designated by the board as a certified psychiatrist. This bill likewise failed of passage.

Virginia.—Senate 99 proposed to forbid the submitting of evidence of insanity or feeble-mindedness as a defense unless a written plea stating that such evidence is to be filed is put in before the jury was sworn. This bill failed of passage in the Senate.

House 97 amends an act passed in 1926 establishing a state farm for defective misdemeanants. It authorizes the establishment of other similar farms for the care of tuberculous, crippled, venereally infected or feeble-minded offenders. The bill has been favorably reported.

House 351 amends section 4909 of the Code of Virginia by making clearer to which hospital the judge may commit any defendant if his care in a mental hospital or colony for the feeble-minded seems necessary. This bill has been enacted.

Several matters have had the consideration of your committee as possible subjects for future action. Your committee is far from feeling that its work is accomplished, and it urgently invites the opinions and suggestions of the Fellows and Members of this Association. We have already indicated that the success of our efforts to bring about a more cordial relationship with the law are dependent upon the active personal assistance of the entire membership of the Association. In making plans for future activity, however, the committee desires to utter a note of warning to the effect that trained psychiatric personnel is insufficient in numbers to meet fully the demands already existing. If the demand is to be increased, as seems highly probable, for example from the realization and development of the ideas promulgated in the past by this and other committees, the number of suitable persons training for careers as psychiatrists and psychiatric social workers should likewise be increased. The responsibility of enlarging the number of psychiatrists is one which rests upon the shoulders of each one of us who is interested in expanding the scope of psychiatry.

To his colleagues on the committee, especially to Drs. Menninger and Overholser, the Chairman expresses his thanks, and his appreciation of their active assistance. He is likewise deeply appreciative of the spirit of cordial

cooperation and helpfulness which has been exhibited by the committees of the American Bar Association and the American Medical Association, and expresses herewith to those associations and to the members of those committees the gratitude of this Association. To the membership of the American Psychiatric Association, he expresses on behalf of the committee a hope that each Fellow and Member of the Association will take a personal interest in helping to bring about a closer rapprochement between psychiatry and the law.

Respectfully submitted,
GEORGE M. KLINE, *Chairman.*

PRESIDENT BOND.—I will call for a short report of the Council from the Secretary.

SECRETARY CHENEY.—The Council met this morning at nine-thirty and designated the following Fellows of the Association to form with others they shall select, a Joint Committee on Undergraduate Psychiatric Education: Dr. Albert M. Barrett, Dr. Arthur H. Ruggles, Dr. Franklin G. Ebaugh, Dr. Harry S. Sullivan and Dr. Louis Casamajor as alternate.

The Council appointed the following Executive Committee: Dr. English, Dr. Russell, Dr. Klopp, Dr. Chapman and Dr. Cheney.

PRESIDENT BOND.—As I am a participant in the last and least of the papers of this morning, I consider I am doing the proper thing in turning over the conduct of the scientific session to the incoming President. It is very appropriate that after the circumstances of this session, we should emphasize the international character of our own organization by going to Toronto for our next session and by electing to the presidency so faithful a friend and so distinguished a physician as Dr. English of Ontario. I will ask Dr. Copp to escort Dr. English to the chair.

The audience arose and applauded as Dr. Copp escorted Dr. English to the chair.

PRESIDENT ENGLISH.—*Dr. Bond, Ladies and Gentlemen:* I have accepted this honor with very much hesitancy, feeling my inability to conduct the business in the admirable way that Dr. Bond and his predecessors have done. However, I take it as an honor to be elected here in your capital city to the position of President of this—I was going to say the most important mental and medical organization of this continent.

I do not desire to detain you, but I bid you a hearty invitation to Toronto next year, where we will endeavor to have a little more coolness in the weather, but a thoroughly hearty welcome to you all. I thank you.

The first scientific paper for presentation this morning is given by Dr. David M. Levy of New York on "The Causes and Effects of Maternal Overprotection." Dr. Levy!

Dr. Levy presented his prepared paper.

PRESIDENT ENGLISH.—The discussion of this very interesting paper is now to be opened to members of the American Psychiatric Association only, each speaker to be limited to three minutes. We will be very pleased to have you fully discuss this paper. Dr. Brill!

The paper was discussed by Drs. Brill, Dearborn, Healy, Sullivan and Levy.

PRESIDENT ENGLISH.—The next paper will be presented by Dr. William Healy, of Boston, "Pathological Personalities." Dr. Healy!

Dr. Healy presented his prepared paper.

PRESIDENT ENGLISH.—I am now going to take pleasure in calling upon Dr. Kahn, of Yale University, to open the discussion. Dr. Kahn!

Dr. Eugen Kahn opened the discussion which was also participated in by Drs. Clark, Kasinini, Alexander, Brill and Healy.

PRESIDENT ENGLISH.—The final paper of the morning is one entitled, "The Treatment of Post-Encephalitic Children in a Hospital School," by Drs. Earl D. Bond and Kenneth E. Appel, of Philadelphia. Dr. Appel will present the paper.

Dr. Appel presented the paper.

PRESIDENT ENGLISH.—I will call on Dr. Gibbs to open the discussion on this most interesting paper. If Dr. Gibbs is not here, we will call on Dr. Baker.

The paper was discussed by Drs. Baker, Nelson and Klopp.

PRESIDENT ENGLISH.—The next matter to come before us is the report of the Committee on Resolutions, Dr. Abbot.

Dr. E. Stanley Abbot read the report of the Resolutions Committee as follows:

REPORT OF THE COMMITTEE ON RESOLUTIONS.

The functions of a committee on resolutions differ widely, not only in different organizations, but from time to time in the same organization. As its name implies, one is the presentation of formal resolutions for adoption by the Association. Your committee offers none this year, as none were submitted to it by the Council.

In this Association another of the functions has long, if not always, been to express the appreciation and thanks of its members to certain persons who have contributed signally to the interest and success of its meetings. It is in no perfunctory spirit that your committee, therefore, says a hearty "thank you" to Hon. Charles J. Rhoads, Commissioner of Indian Affairs, for his gracious words of welcome; to Dr. Weygandt, of Germany, for his

great pains, at considerable personal inconvenience and at the Association's request, to present his most interesting moving pictures of the hospital at Hamburg; to Dr. Hornell Hart for his inspiring address; to President James R. Angell for his timely and broadly constructive contribution; and especially to Dr. Lawson G. Lowrey, who, with his co-workers on the Committee on Program, has met the difficult task of providing an abbreviated program of scientific papers of varied and unusual interest and excellence. Due largely to this fact, the scientific sessions have attracted unusually large audiences and have held them to the end.

In this connection it may be added that the policy of the Section on Convulsive Disorders, continued through several years, of limiting its program to papers on clinical-pathological subjects, approached, however, from many angles, was productive of contributions of a high order of excellence.

On this occasion special tribute should be paid to our retiring President, Dr. Bond, whose efficient services over many years as Secretary, Vice President and President has contributed notably to the healthy growth and development of the Association, especially along its scientific lines.

Still another function of this committee has sometimes been to comment on some of the outstanding features of the current meeting.

Collaboration with the First International Congress on Mental Hygiene, though necessitating a shortening of our Association's scientific program, has made this meeting one of very exceptional interest through bringing to its sessions many interested persons from many countries of the world, and thus making possible a number of mutually profitable personal contacts and exchanges of ideas. It also made our Association a part of a very notable historic event.

Reports of three of our standing committees prompt this committee to special comment, namely, those of the Committee on Relations with the Social Sciences, the Committee on Medical Services and the Committee on Nursing. All showed painstaking care in their preparation, not only in the gathering of data, but in the thoughtfulness of the recommendations drawn from them.

One further function, the Committee on Resolutions has sometimes exercised, namely, that of calling the attention of the members of the Association to some particular phase of a report, with recommendation for individual action by members themselves.

The report of the Committee on Statistics called attention to the fact that the American Medical Association, in its reports on hospitals and in the Medical Directory, fails to recognize the distinctions among the different kinds of hospitals which deal with mental patients, but groups them all together under one heading, "nervous and mental" hospitals. Your Committee on Resolutions recommends that each hospital superintendent report his hospital to the American Medical Association as a "hospital for mental diseases," "hospital for epileptics," "hospital (or school) for mental deficiency," or "hospital for nervous and mental disease," respectively.

Your committee cannot close its report without expressing the Association's appreciation of the uniform courtesy, helpfulness and promptness of

the hotel management and employees, in making the necessary provisions for the sessions and meeting the unexpected emergencies that inevitably arise from time to time, and its hope that the Secretary will so inform the management.

Respectfully submitted, for the committee,
E. STANLEY ABBOT, *Chairman.*

PRESIDENT ENGLISH.—The report of the Committee on Resolutions is now before you.

DR. HENRY I. KLOPP.—I move it be accepted.

The motion was seconded by Dr. Copp, put to a vote and carried.

PRESIDENT ENGLISH.—It is now my duty to close this meeting. I must say I believe scientifically and socially it is one of the best we have yet held. I declare this eighty-sixth session closed.

The meeting adjourned at one o'clock.

NOTE.—The registration cards of members and guests of the Association were unavoidably combined with the registration cards of the International Congress on Mental Hygiene. It has been ascertained that 393 Fellows and Members were registered and that the total registration, including guests, was approximately eight hundred.

CLARENCE O. CHENEY,
Secretary.

Association and Hospital Notes and News.

PROGRAM FOR THE EIGHTY-SEVENTH ANNUAL MEETING OF THE AMERICAN PSYCHIATRIC ASSOCIATION.—Dr. Samuel W. Hamilton, Chairman of the Program Committee, has sent us the following notice to Fellows and Members of the Association:

The Association will meet at Toronto, the first week of June, 1931. There will be opportunity for the Association to listen to a few more than twenty papers. Last year a considerable number could not be accepted because of limits of time; this year the situation is somewhat different, but it is anticipated that papers offered early can be more easily fitted into the program than can those that are proposed at the last minute.

It is requested that all members who have suggestions concerning the topics or authors that they would wish to hear, communicate as soon as possible with the chairman of this committee. It is hoped that among the voices heard at this meeting there will be some that are new to us.

Further, those who wish to present papers must submit abstracts to the committee not later than January 10, 1931. This requirement is made necessary by regulations of the Association whose purpose is to assure its membership of adequate information before the meeting about the matters to be discussed.

The committee will welcome suggestions about both the organization and the contributors to the program. The arrangement of round tables must be considered, and any desirable innovation should be called to attention. Your cooperation is earnestly sought, to the end that this program may be entirely worthy of the Association for which it is arranged.

Dr. Hamilton's address is Bloomingdale Hospital, White Plains, Westchester Co., N. Y.

The Editors urge the membership of the Association to co-operate actively with the Program Committee, and particularly those who have papers to present to send promptly the abstract required. There are doubtless many who have suggestions to make which the committee would be glad to consider.

COMPLIMENT TO DR. C. B. BURR.—On Tuesday evening, September 16, a dinner was given by the Michigan State Medical Society to Dr. C. B. Burr of Flint, at Benton Harbor, Michigan.

The dinner was given not only to compliment Dr. Burr, but to celebrate the completion of a two-volume history of the medical profession of Michigan.

This history has been compiled by a committee of the State Medical Society of which Dr. Burr is chairman. The real work of the committee has been carried on by Dr. Burr, who has said that he has had a "great deal of fun" in the work.

Dr. Burr has been for more than half a century identified with psychiatric work; first at Pontiac, Michigan, under Dr. Henry M. Hurd, as assistant physician, then as Dr. Hurd's successor as Superintendent of the Eastern Michigan State Hospital from 1889 to 1894.

In 1894 Dr. Burr organized Oak Grove, a private institution for mental and nervous disorders, at Flint, Michigan, and for several years conducted it in a most successful manner.

Dr. Burr was Secretary of the American Medico-Psychological Association 1897 to 1904 and President 1905-6.

He has been retired, we were about to say from active work, for some years, but that would be impossible for a man of Dr. Burr's temperament. He has been retired, but still active. He has brought out a new edition, the fifth, of his Handbook of Practical Psychology and Psychiatry first published in 1898, has done much other writing, and now has brought to a very successful completion his *magnum opus*, the history of the medical profession in Michigan.

The State Society has honored itself in doing him honor.

Abstracts and Extracts.

The Albumen Relation of the Cerebrospinal Fluid. IV. The Bearing of the Albumen Relation on Other Findings in the Cerebrospinal Fluid.
V. KAFKA, and K. SAMSON. (*Zeitschr. Ges. Neurol. und Psychiatrie*
119 (1) : 153-162. 1929.)

The upper normal limit of cells in the cerebrospinal fluid does not exceed $8/3$ in a cubic millimetre. In most cases of negative fluid the maximum was $5/3$. Those few cases in which more than $5/3$ cells were found, were not altogether free from abnormal manifestations, and one case presented a history of congenital lues. On the other hand it has been found that cases with a number of cells within $8/3-15/3$ in a cm. were associated with a positive mastic reaction, and presented some abnormalities. These mild serological alterations should, however, not be regarded as manifestly pathological in so far as the clinical findings are not conclusive. These fluids are qualified by Kafka and Samson as *abnormal* in distinction from *normal* and decisively *pathological* ones.

Concerning the Wassermann reaction, the writers had never observed a positive one without concomitant changes in the albumen relation, although there was no parallelism in the intensity of these two tests. As to the evaluation of the colloidal reactions, more valuable information may be obtained when they are compared with the ratio albumen-globulin instead of the total amount of albumen.

S. KATZENELBOGEN, M. D.,
Henry Phipps Psychiatric Clinic, Baltimore, Md.

Investigation on the Cerebrospinal Fluid. H. HEINEMANN (*Arch. Schiffs- und Tropen-Hyg.* 32 (10) : 500-505. 1928.)

In syphilis among the Chinese people a distinct positive gold reaction is to be found more frequently than in syphilis among the Javanese. This also holds true for leucocytosis and the Wassermann test. These serological findings bring support to the clinical experience that Chinese workmen are more predisposed to syphilis of the central nervous system than Javanese laborers.

S. KATZENELBOGEN, M. D.,
Henry Phipps Psychiatric Clinic, Baltimore, Md.

Résumé of Ten Years Study in Defectology and Pedology. E. P. PUNINA-GRIBOEDOFF, M. D.

This and the following seven abstracts were made by Dr. John Notkin, Manhattan State Hospital, New York, from News in Defectology. Collected

Papers from the Neuropsychiatric State Academy and the State Institute of Reflexology; Vol. 1. Sovietsky Pechatnik Press, Leningrad, 1928. In this article the author gives a résumé of ten years study in defectology and pedology among the children in Leningrad, especially in regard to their abilities, school progress, neuropsychiatric health and their professional inclinations and taste. The principle was worked out by Professor Griboidoff, organizer and director of the institute for child research. This institute consists of several departments, the medical pedagogical clinic where children are accepted for re-education or furthering education and treatment. They are kept there for about three years, sometimes longer. The adjustment of the children is carefully studied. They are divided into groups according to their social biological personality traits. The main aim of this department is to develop in the child, who is considered as a pupil there, a critical attitude toward himself and the environment, he is helped to develop insight into the conflict which has been produced by previous conditions and also helped in his attempt to free himself from it by different methods such as rationalization, self-re-education and by aid of sublimation. The children of both sexes are kept together with the purpose of adjusting them to a normal sexual life, lessening the callousness of the purely masculine organizations and increasing the initiative of the purely feminine organizations. In this department there are a number of sub-divisions such as a pre-school division for children who have reached the age of eight and above but who are physically and intellectually still at the pre-school level. Further there is the individual group especially for the phrenasthenics. Here particular attention is paid to occupational education and development of art instincts such as painting, singing, etc. There is further the lower school group for neurotics and psychopaths. The higher school group is for children from 13 to 16 years of age and has the usual curriculum of a normal school. The main problems are the following removal of a child from the environment which helped to develop disturbances in the higher neural activities which handicapped a normal social adjustment. Further the constant pedagogical observation during the period of education in the group for future avoidance of anti-social tendencies. Great attention is paid to the physical working régime and to self-government connected with political education which would give an opportunity for high sublimation; further—physical training and other therapeutic measures including psychotherapy, electrotherapy are applied.

In the pedagogical laboratory a study of the physical habitus and a psychological study of the child is made. This laboratory is fitted out with all the up-to-date instruments for measurements. There the children are also analyzed as to their sexual constitution, pre-genital organization and repressed complexes.

The medical pedagogical ambulatory is for outside patients. Problems of the child are studied and it is decided as to whether the child is to be placed in the previously mentioned department or directed in a special school, hospital or sanitarium. Finally there is the psychotechnic and prophororientation department for a psycho-technical observation of gifted children. Professional inclinations of these children are then defined.

The Reaction Type of School-Age Children in Their Social Relations. B. F. POHLMAN. This author discusses the types of reaction of school-age children in their social relations. He made an attempt to study with the help of written questions the reactions of the offense of stealing of a group of 789 children of the school age (from 9 to 16) in approximately equal proportions of boys and girls. The material is worked up along the classifications of the reaction-types by Baumgarten. The following groups have been established. The affective group. *a.* Active. 1. Similar reactions: where the reaction follows immediately and impulsively without thinking as an immediate explosion. 2. Increased reaction where the offense is returned in a higher form. 3. Bodily reaction with fistic encounter. 4. Reaction which is connected with consciousness of own helplessness. *b.* Passive. 1. Affects without external reactions. 2. Reactions with hostile emotions. 3. Reactions of rationalization. 4. Reactions of indifference.

Pohlman obtained the same reaction-types but a different percentage of the individual types. He also undertook a study in the same group of children from the point of view of their pedagogical characteristics and the state of nervous system on one hand and with the pedagogical appreciation of the reactions of behavior on the other hand. The study of the type of reaction in children in their social contacts is experimental in character and gives an idea of the behavior of the child under all circumstances.

This study should have considerable significance for practical pedagogy and will help a great deal in the study of the personality of the pupil. Maximum attention, the author thinks, is usually paid to his abilities and progress and very little attention is given to the study of his reactions.

The Pedagogical Card. B. F. POHLMAN. The author in cooperation with the psycho-neurological academy has worked out a pedagogical card for use in research work and also for use in schools. Social environment, physical status, school progress, traits of the pupil as given by the teacher and results of the tests of intelligence are noted. Special note is made of the social relationship and the family life.

The Binet Test on Blind Children. M. P. MALYGINA. The author made a Binet test on 100 blind children and found them somewhat backward in development. All the tests for rapidity of grasp were difficult for them. Their vocabulary seemed to equal those of other children. The memory for sentences is somewhat diminished especially the mechanical memory. She came to the conclusion that blindness does not diminish the I. Q. but diminishes social adaptability and school progress.

A Pedagogical Study of the Social Environment. M. M. SHERSHEN. A study of all the influences which may affect the child is made. The social situation is represented in a graphic form which is supposed to afford easy and quick orientation. The social diagnostic profile consists of 35 individual components of the environment which are divided into three groups and which

correspond to five periods of the child's development. First the embryonic period, then the breast feeding period, kindergarten period, preparatory school period and school period. This profile is a quite complicated one and the numeric representation is very difficult to grasp.

Collective Study of Intelligence on a Group of Pre-School and School Children of Normal and Abnormal Status. U. A. LEVIN, M. D. An attempt is made to represent the structure and the content by four different group methods of intelligence testing on 15,000 pupils from different schools in Leningrad. The children were divided in normal, sub-normal, mental defectives and problem children. So far age-norms and correlation co-efficients have been obtained. The methods included children from 4 to 16 years of age.

A Psychoanalytic Approach of Vagabond Children. S. A. SOKOLSKAIA, M. D. The author submitted to analysis some literary work of Russian and foreign writers and also gave the results of analysis of 95 vagabond children selected among the 1025 inmates of the child study institute. There were 75 boys and 20 girls; 31 per cent were mentally under-developed, 5 per cent epileptics, 14 per cent neurotics, 2 per cent schizophrenics and 42 per cent so-called degenerative psychopaths.

Natural Experiments in Normal and Pathological Children of Pre-School Age. V. L. RUBASHEVA. The degree of intellectual development is studied with the aid of the following psychological basal processes namely: Degree of imagination, mental tension and memory, thinking capacity, regulation, movement, etc. The following problems were given. 1. Writing a poem. 2. Drawing a figure of an elephant. 3. Description of a stuffed goose. 4. Repetition of short stories. 5. Solution of a problem. 6. Composition of a sentence from three words given. 7. Making a notebook out of paper. 8. An explanation of how to start a fire in a stove. 9. Physical exercises. Classification in the following three intelligence grades are made from the results of the studies: Above normal, normal, diminished intelligence and deficiency.

Book Reviews.

The Psychophysical Interaction in Diseases Associated with Hypertension.
BY KARL FAHRENKAMP, M. D. (*Stuttgart and Berlin: Hippocrates Verlag, G. M. B. H. 1926.*)

This work is concerned with the interaction of mental and physical conditions in hypertension. Although it seems to be generally accepted that in any kind of hypertension a close relation between the psychic life and the function of the circulatory system is to be found; notwithstanding the fact that Goldscheider among others puts psychotherapy at the head of the therapy for hypertension, the part which mental factors take in this disorder has not been as yet adequately investigated.

Kylin, to whom we owe much of our actual knowledge of hypertonia diseases, has been but little concerned with the interrelation of somatic and mental conditions. It is Fahrenkamp's endeavor to fill this gap in Kylin's work.

Clinical experience makes clear that psychic factors take a conspicuous part in the etiology and evolution of diseases with hypertension. But also the organic basis cannot be denied. As to the respective influence of somatic and psychic components one may envisage three possibilities:

1. Hypertension is subordinated to mental factors.
2. Coordination of mental troubles and hypertension.
3. Hypertension inducing psychic disorders.

Regarding the cases in which somatic alterations of the circulatory apparatus appear to be responsible for the mental disorder, Fahrenkamp raises the question whether also in these cases, the mental status of the personality should not be considered as the primary factor in creating the tendency to hypertension. These theoretical considerations are discussed on the basis of a study of over 800 curves of blood pressure. The four following topics have been especially investigated.

1. The daily modifications of the blood pressure.
2. Different types of blood pressure curves.
3. Somatic and psychic interaction as expressed in the curve.
4. Suggestions derived from the curves as to treatment.

Two types of blood pressure curves may be observed in normal and pathological conditions. A series of cases is recorded in which blood pressure was taken three times a day from 10 to 18 days and no change was observed. This type of *straight line curve* is far from being the common type. On the contrary, fluctuations are to be found more frequently. One of the cases illustrated is that of a girl 24 years old in whom the blood pressure rose from 100

to 160 on several occasions, and remained at the high level as long as she was under emotional strain. Fluctuations are to be seen also in cases of persistent hypertension. In contrast to Roemheld's view, Fahrenkamp contends that evening and morning variations of blood pressure are not characteristic of functional hypertension only; organic hypertension may equally display important daily fluctuations. Comparing his curves with those of Kylin, Fahrenkamp stresses the fact that their methods of investigation are different: Whereas Kylin's aim was to eliminate, as far as possible, exogenous and endogenous factors which could affect the blood pressure, Fahrenkamp had not taken any precaution of this kind. And yet they both obtained strikingly analogous curves. From this observation the inference is drawn that the lability is the characteristic feature of certain forms of hypertension. It is a basic condition which may be accentuated under certain influences, but which does not disappear when the additional influences are removed. Thanks to this property the cardiovascular system is not continuously under the strain of high pressure. And this property can be revealed only through following the morning and evening variation during a certain period.

Studies of the daily fluctuations of the high blood pressure have shown their significance as to the diagnosis and prognosis in various forms of kidney disease, in arteriosclerosis and in the so-called essential hypertension. The greater the variations, and the more frequently they occur, the better the prognosis. The most important remissions are to be found in essential hypertension; the blood pressure may be normal in the morning and very high in the evening. It is in this form of hypertension that the lability is particularly liable to be affected by an affective unbalance. This kind of hypertension also yields easily to any therapeutic measure, pharmacologic or psychologic, having a quieting effect.

The influence of the psychism on the blood pressure is formulated as follows: An emotion, pleasant or unpleasant, affects the function of the cardiovascular system and consequently the blood pressure changes. But the lability of the tone of the circulatory apparatus is a preliminary and necessary condition. In certain cases emotions which do not come into consciousness may be operating transiently (in dreams) or continuously, thus contributing to the rise of the blood pressure. It is not unlikely that repression in the Freudian sense play a rôle in hypertension and is also responsible for its acute exacerbations. On the other hand repeated functional elevation of the blood pressure may contribute to organic disturbances.

In Fahrenkamp's experience, in neurotic individuals the fear of high blood pressure associated in his mind with apoplexy and kidney diseases takes an important part in inducing and maintaining hypertension. On the other hand, hypertension in a neurotic person becomes a source of anxiety.

The influence of affective disorders on the blood pressure is illustrated by a series of curves:

A patient who suffered from a conflict associated with her marriage responded with a rise of the blood pressure from 180 mm. to 220 and from 140 mm. to 190 on two occasions, when her physician intentionally induced her to talk about her marriage.

Six curves of six patients display marked variations of the blood pressure, such as from 130 mm. to 230 mm., 160-250 mm., while the patients were under the strain of emotion.

Six other curves show a fall of the blood pressure from 200 mm. to 120 mm., from 240 to 150 mm., etc., when the patients were under the influence of psychotherapy which evidently had a calming effect. These observations unequivocally show that the functional element takes an exceedingly important part in inducing and maintaining high blood pressure. One should, however, also take into account anatomo pathological alterations. Their presence is, in Fahrenkamp's opinion, indicated by the following observations: Patients who have ever had hypertension remain prone to it all their lives; they always at some time show evidences of anatomo pathological alterations in some organ; and finally their death is generally caused by vascular disorders.

The blood pressure curves also give suggestions regarding treatment. Since a functional component is to be found in every kind of hypertension the success of any treatment will greatly depend upon the psychic element which the treatment contains. Psychotherapy should be carried out in a way that the patient will not be aware of being handled as a nervous person. The personality study and the understanding of the nature of the disease by the patient and the physician will yield the most effective means of treatment. The patient himself should voluntarily adapt himself to the situation created by his disease. In addition to the psychotherapy the use of drugs and mainly sedatives will be helpful and very often indispensable. There is no specific drug treatment of hypertension. In Fahrenkamp's experience a combination of calcium and diuretine has proven to be effective. Dietetic treatment, physiotherapy and CO₂ bathing have been used with varying results.

Fahrenkamp terminates his study with quotations, regarding therapeutics in general from Krehl work: "The Pathological Physiology and the Physician":

A rational therapy should not confine itself to one procedure. In treating the whole personality without discriminating between body and mind the physician will accomplish much more than by handling the patient physiologically. Krehl exhorts us to make use not only of what is accessible to the insight and will of the individual but also to investigate the unconscious which is "finally the guide of our being."

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Psychopathology and Politics. By HAROLD D. LASSWELL, Associate Professor of Political Science in the University of Chicago. (Chicago: Univ. of Chicago Press, 1930.)

A contribution from the pen of the brilliant young political scientist, in which an attempt is made to correlate psychoanalytic insights into human motivation with those aspects of social relations covered by the general term, Government. The author concerns himself with the utility of free-fantasy in

elucidating judicial and similar decisions; the psychopathological factors entering into the choice of a career as a radical politician; and factors concerned with political conservatism. He presents an excellent case study of a prominent socialist, revealing considerable skill at interpretation. There are chapters on "Life-Histories and Political Science," "The Criteria of Political Types," "Theories of Personality Development," "The Politics of Prevention," and "The State as a Manifold of Events." The author discusses the use of a modified psychoanalytic procedure and develops his formulation of "the personality system and its substitutive reaction."

Too often the writing of a social scientist impresses the student of human personality as a strange and relatively useless armchair philosophizing by individuals already discouraged in an attempt to understand themselves. On the other hand, to the worker in the social disciplines the formulations of the psychiatrist seem to overlook most of those aspects of human life that are significant in the doings of the "man in the street." The book under review brings the preoccupation with manipulation of other people, the settlement of disputes and the like, out of the abstract statistical field into that of concrete manipulative and related behavior of individuals, in turn understood as products of their previous experience. Personality takes its place as a potent factor in the study of politics. And political behavior stands out as a sub-variety of life work that has relations to personality growth and disorder.

The book represents a new departure within political science. It is not intended as a treatise, nor is it a systematic development of part of the field. It is calculated to stimulate a dynamic viewpoint in the student. The reviewer does not find himself convinced that "in stressing the value of the study of the concrete sequence of individual experience for political science, we are expressing a trend of interest which is already well founded in social science"—the social scientists of his acquaintance who have discovered the importance of individual personality still being numerically insignificant. That the trend itself—as manifested, for example, in this book—is the very breath of life for the study of society, needs no argument to the psychiatrist. That psychiatry is in urgent need of a sympathetic presentation of the viewpoint of each one of the social sciences is perhaps far less generally admitted. A reading of this book should prove an antidote to narrow-mindedness in psychiatry.

HARRY STACK SULLIVAN.

Psychiatric Word Book. By RICHARD M. HUTCHINGS, M. D., Superintendent, The Utica State Hospital. (Utica, N. Y.: State Hospitals Press, 1930.)

A grand little book for the use of stenographer, typist, and student unfamiliar with the words apt to occur in clinical reports. Includes nearly all of the words in common use within the specialty and a concise composite of definitions.

HARRY STACK SULLIVAN.